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LLNL-TR-413007

NDA Batch 2007-20

R. K. Hollister

May 14, 2009

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NDA BATCH REPORT COVER SHEET

NDA Batch Number **2007-20** | Status: **VALIDATED**

Testing Facility: **LLNL Plutonium Facility Segmented Gamma Scanner (SGS)**

Waste Containers

LL85901731 LL850017415 LL85001464 LL85001758 LL85001792 LL85234270 LL85001765 LL85501318
LL85101542 LL85901335 LL85901731-R

100% of the radioassay data in the Batch Data Report must be reviewed.

CID ending in -R are REPLICATES

Table of Contents

Section	Date	Section	Date
Cover Sheet/Table of Contents	12/27/07	LL85501318, RUN 2509	12/17/07
Batch Narrative	1/5/08	LL85101545, RUN 2511	12/17/07
SGS DGL Batch DR RV&C Checklist ¹	1/3/08	LL85901335, RUN 2512	12/17/07
SGS Logbook pages for this batch	12/27/07 to 12/14/07	SGS 100, RUN 2514	12/17/07
Control Charts for background checks	12/12/07 to 12/17/07		
Control Chart for performance check (100g standard)	12/12/07 to 12/17/07		
SGS 100, RUN 2494	12/12/07		
LL85901731, RUN 2495	12/12/07		
REPLICATE: 6685901731, RUN 2497	12/12/07		
LL85001745, RUN 2498	12/12/07		
LL85001764, RUN 2499	12/12/07		
SGS 100, RUN 2501	12/13/07		
LL85001758, RUN 2502	12/13/07		
LL85001792, RUN 2503	12/13/07		
LL85234270, RUN 2540	12/13/07		
LL85001765, RUN 2506	12/13/07		
SGS 100, RUN 2508	12/13/07		

¹ SGS Data-Generation-Batch Data Report Review, Verification, and Validation Checklist

NDA Batch Narrative

JW 1/3/08

Batch Number: 2007-20

Status: **NOT VALIDATED**

Quality Control Summary

QC Sample results (daily background check drums and 100-gram standard) were within acceptance criteria established by WIPPs Quality Assurance objectives for TRU Waste characterization.

Replicate Summary

Replicate run was performed on the following drum LL85901731. Replicate measurement results are acceptable at the 95% confidence level as established by WIPP criteria.

Nonconformances

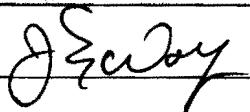
None Identified.

Technical Supervisor/QA Officer Comments

Background Checks were completed, but electronic data was not saved to print data reports. Background Checks were verified using Control Charts to be sure all Backgrounds were within acceptable limits. Backgrounds show within limits per Control Chart.

Technical Supervisor/QA Officer Printed Name

Signature



Date 1.3.08

**SGS DATA GENERATION-LEVEL BATCH DATA REPORT
REVIEW, VALIDATION, AND VERIFICATION CHECKLIST**

RADIOASSAY BATCH NUMBER: 2007-20 includes the following containers:

<u>LL85901731</u>	<u>LL85001745</u>	<u>LL85001764</u>	<u>LL85001758</u>	<u>LL85001792</u>
<u>LL85234270</u>	<u>LL85001765</u>	<u>LL85501318</u>	<u>LL85101542</u>	<u>LL85901335</u>
				<u>LL85901731-R</u>
replicate				

100% of the radioassay data in the Batch Data Report must be reviewed.

Yes/No

(Y/N)

Independent Technical Reviewer Checklist

Initial & date: ROH 12-18-07

- The assay measurements are within the system calibration range for the factors of waste matrix, radionuclide identity, and activity.
- The Expert Reviewer has evaluated the Batch Data, the review is complete and is documented on the SGS Expert Reviewer Checklists or data reports, as appropriate.
- Data are reported in the proper units and correct number of significant figures or more.
- Calculations have been verified by a valid calculation program (GWAS and/or MGA), and/or I have conducted a spot check of verified calculation programs, and/or I have made a 100% check of all hand calculations. (Mark all that apply.)
- I have reviewed the data, including manually input text, for transcription errors or no transcriptions were done. (Check, especially, container identification number, batch number, and gross and tare weights.)
- Source transmission for each segment of every measurement is either within the acceptable range or has been accepted by the expert reviewer.
- The testing batch QA documentation is complete and includes raw data (including data on electronic storage media and copies of SGS logbook entries for the batch), calculation records (including the printed SGS measurement report, Radioassay Data Sheet, and, if done, the Expert Reviewer's report), references to calibration records (a Count Type of 55 Gallon Galv. Drum, Daily 20 g Drum Check, or Daily 100 g Drum Check indicates an acceptable calibration), and QC sample results, namely, a Radioassay Data Sheet for a replicate of an unknown.
- QC measurements, namely background and performance checks, were made at the beginning of each counting session in the batch and their records are present.
- QC measurement results (background checks and performance checks by measurement of standards) are within established control limits per procedure for SGS operations (OP-B332-005). QC criteria that were not met have been documented with a closed and satisfactorily resolved WCP NCAR or Plutonium Facility CAR.
- A replicate count of an unknown has been made once for every batch (which has a maximum of 20 waste containers) or once per week, whichever is more frequent.
- Replicate assay QC measurements were properly performed and pass/fail criteria are within established control limits, as calculated below, per procedure WIC 134, and if not, the data have been appropriately qualified.

Let A_1 be the Pu-239 activity from the first replicate count, as recorded on the Radioassay Data Sheet, and A_2 the value from the second replicate count.

Calculate: $D = |A_1 - A_2| =$

0.40

Calculate: $s = \sqrt{(1.96 s_1)^2 + (1.96 s_2)^2} =$

5.34

where $1.96 s_1$ and $1.96 s_2$ are the 1.96σ total measurement uncertainties associated with A_1 and A_2 . If $D < s$, the measurement results are the same at the 95% confidence level and the QC measurement passes.

I have marked the Passed item on the Radioassay Data Sheet(s) for QC replicates as either Yes or No.

Robert J. Haslett Jr.

Independent Technical Reviewer Signature

12-19-07

Date

Robert J. Haslett Jr.

Printed Name

**SGS DATA-GENERATION-LEVEL BATCH DATA REPORT
REVIEW, VALIDATION, AND VERIFICATION CHECKLIST**

Yes/No

(Y/N)

Technical Supervisor Review Checklist

Y

The data are technically reasonable based on the gamma spectroscopy technique used by the SGS.

Y

All data have received independent technical review.

Y

The testing batch QA documentation is complete and includes raw data, calculation records, references to calibration records, and QC sample results, namely, a replicate of an unknown.

Y

Testing batch data correctly lists the testing facility name, testing batch number, drum numbers included in the batch, and signature releases of radioassay testing personnel.

Y

A table of contents is present.

Y

Background and performance check data and/or control charts for the relevant time period are present.

Y

Separate Radioassay Data Sheets are attached for each waste container. The sheets include information on the method used, Item Description Code (LLNL TRUW Form number or waste stream number), date of examination, total Pu-239 FGEs (g) and associated uncertainty, total alpha activity and associated uncertainty (Ci), TRU activity (nCi/g) and associated uncertainty, listing of individual radioisotopes present (Ci) and associated uncertainties (Ci), thermal power (total decay heat) and associated uncertainty (W), QC replicate (yes/no), and Operator signature / date, expert reviewer (when applicable) signature / date.

N/A

Actions necessary for release of data: _____

Actions completed: _____

Signature

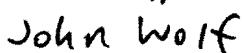
Date



Technical Supervisor Signature

1/3/08

Date



Printed Name

**SGS DATA-GENERATION-LEVEL BATCH DATA REPORT
REVIEW, VALIDATION, AND VERIFICATION CHECKLIST**

Yes/No/Not Applicable

(Y/N/NA)

QA Officer Review Checklist

Y

Independent Technical and Technical Supervisory reviews have been performed as evidenced by the appropriate signature releases. (Write "NA" if this checklist is filled out by the same person who filled out the Technical Supervisor Review Checklist.)

Y

The testing batch QA documentation is complete as appropriate for radioassay, as detailed in the Technical Supervisor checklist. (Write "NA" if this checklist is filled out by the same person who filled out the Technical Supervisor Review Checklist.)

Yes/No

(Y/N)

Y

Additionally, these data validation checklists (Independent Technical Review, Technical Supervisor review, and QA Officer review), when complete, are appended to the Batch Data Report.

Y

Quality Assurance Objectives have been met:

Y

The results fall within the ranges for which the Quality Assurance Objectives were verified for the SGS.

Y

The MDC has been correctly determined for the waste matrix of this container. (Note that the MDA values for the radionuclides reported on Radioassay Data Sheets have not been corrected for transmission attenuation, unless the expert reviewer has done so and so stated.)

Y

The value reported for TRU alpha activity concentration > MDC if the reported value > 100 nCi/g. (LLW, where the reported concentration ≤ 100 nCi/g, may be reported as ≤ MDC.)

(In determining TRU alpha activity concentration, any radionuclides measured at ≤ MDC are counted as zero activity or are input, using acceptable knowledge, from known ratios to a nuclide measured at > MDC.)



QA Officer Signature

1.3.08

Date



Printed Name

SGS DAILY LOGBOOK for WS-7715 in B-332/1377

DATE: 12-12-07	PAGE 1 of 1	PRIMARY OPERATOR'S NAME/INITIALS: <i>Dave H</i>	SECONDARY OPERATOR(s) NAME/INITIALS: <i>William J. Pellegrini WJP</i>				
DAILY CHECKS/INITIALS: (Fill in on Page 1 only)		Daily Room Check complete <i>(✓)</i> , Daily Scales Check complete <i>(✓)</i> , Date/Time Dewars last filled 12-12-07 ... N/A					
START TIME	END TIME	DRUM ID *	OPER. Verifed *	SEQ. #	BATCH #	DRUM GROSS WT	COMMENTS
9:43	8:48	BCK	<i>(WP)</i>	2493	2007-20 2492	N/A	BEGIN B-2007-20 OK
8:56	9:51	S100g	<i>(WP)</i>	2494	2007-20	54.0 kg	OK
10:08	10:53	LL85901731	<i>(WP)</i>	2495		64.8 kg	OK
11:26	11:31	BCK	DEFF <i>(WP)</i>	2496		N/A	OK
12:31	13:26	LL85901731-R	DEFF <i>(WP)</i>	2497		64.8 kg	OK
14:02	14:57	LL85001745	DEFF <i>(WP)</i>	2498		64.8 kg	OK
15:10	16:05	LL85001764	DEFF <i>(WP)</i>	2499		66.0 kg	OK
		LL05 <i>(WP)</i>	<i>DEFF</i>				
NOTES: * Options are: BCK (Background), S100g (Standard), or Waste Drum No. (Omit "TRU" on LL drums.) *** Ref: OP-B332-005, Section 9 ** Secondary Operator's initials req'd for all waste drums to verify that both the gross and tare wts. are accurate and have been entered into the computer correctly.							

SGS DAILY LOGBOOK for WS-7715 in B-332/1377

DATE: 12/13/07	PAGE <u> </u> of <u> </u>	PRIMARY OPERATOR'S NAME/INITIALS: <u>DAVE HILAND</u> <u>JTH</u> SECONDARY OPERATOR(s)'S NAME/INITIALS: <u>KEN LEMKE</u> <u>KL</u> / William R. Bergman (WRB) / ~b4n wolf jay						
DAILY CHECKS/INITIALS: (Fill in on Page 1 only)		Daily Room Check complete <u>YEAH</u>		Daily Scales Check complete <u>NO</u>		Date/Time Dewars last filled <u>12/12</u> ...		
START TIME	END TIME	DRUM ID *	OPER.	Verifier **	SEQ. #	BATCH #	DRUM GROSS WT	COMMENTS
7:35	7:40	BCK	<u>DAVE</u>	<u>NA</u>	2500	2007-20	NA	OK
7:50	8:45	S100g	<u>DAVE</u>	<u>WRB</u>	2501		54.0kg	OK
9:30	10:25	LL85001758	<u>DAVE</u>	<u>WRB</u>	2502		58.4kg	OK
10:55	11:50	LL85001792	<u>DAVE</u>	<u>WRB</u>	2503		61.8kg	OK
11:50	14:00	LL85234270	<u>DAVE</u>	<u>WRB</u>	2504		51.0kg	OK
14:20	15:15	LL85001255	<u>DAVE</u>	<u>WRB</u>	2505		65.8kg	Removed for low Activity. needs to be sealed in tent. 12-18-07 kg
15:34	16:29	LL85001765	<u>DAVE</u>	<u>WRB</u>	2506		10816kg	
NOTES: * Options are: BCK (Background), S100g (Standard), or Waste Drum No. (Omit "TRU" on LL drums.) *** Ref: OP-B332-005, Section 9								
** Secondary Operator's initials req'd for all waste drums to verify that both the gross and tare wts. are accurate and have been entered into the computer correctly.								

Dave Hiland 12/18/07

SGS DAILY LOGBOOK for WS-7715 in B-332/1377

DATE: <u>12/17/07</u>	PAGE <u>1</u> of <u>1</u>	PRIMARY OPERATOR'S NAME/INITIALS: <u>William J. Pellegrini</u> / <u>CJW</u> SECONDARY OPERATOR(s)'S NAME/INITIALS: <u>Dawn</u> / <u>DH</u>						
DAILY CHECKS/INITIALS: (Fill in on Page 1 only)		Daily Room Check complete <u>✓✓✓</u>		Daily Scales Check complete <u>N/A</u>		N/A, Date/Time Dewars last filled <u>12-17-07</u> / <u>N/A</u>		
START TIME	END TIME	DRUM ID *	OPER.	Verifier **	SEQ. #	BATCH #	DRUM GROSS WT	COMMENTS
07:45	07:50	BCK	<u>WJP</u>	<u>N/A</u>	2507	2007-20	N/A	OK
07:55	08:50	S100g	<u>WJP</u>	<u>DH</u>	2508		54.0 Kg	OK
09:15	10:10	LL85501318	<u>WJP</u>	<u>DH</u>	2509		73.0 Kg	OK
10:25	11:20	LL85901284	<u>WJP</u>	<u>DH</u>	2510		120.0 Kg	OK Removed for low activity. Needs to be seeded in Tent. 12-18-07 kg
11:35	12:30	LL85101542	<u>WJP</u>	<u>DH</u>	2511		67.8 Kg	O/C
13:05	14:00	LL85901335	<u>WJP</u>	<u>DH</u>	2512		100.2 Kg	O/C
14:50	14:55	BCK	<u>WJP</u>	<u>DH</u>	2513		N/A	OK
15:00	15:55	S100g	<u>WJP</u>	<u>DH</u>	2514		54.0 Kg	OK End of Batch 2007-20
NOTES: * Options are: BCK (Background), S100g (Standard), or Waste Drum No. (Omit "TRU" on LL drums.) *** Ref: OP-B332-005, Section 9								
** Secondary Operator's initials req'd for all waste drums to verify that both the gross and tare wts. are accurate and have been entered into the computer correctly.								

Rev. 2 - D. Hiland -12/5/02

PFWM Review Name/Date: S. Hilan

12/18/07

Per OP-B332-005, Rev. 4

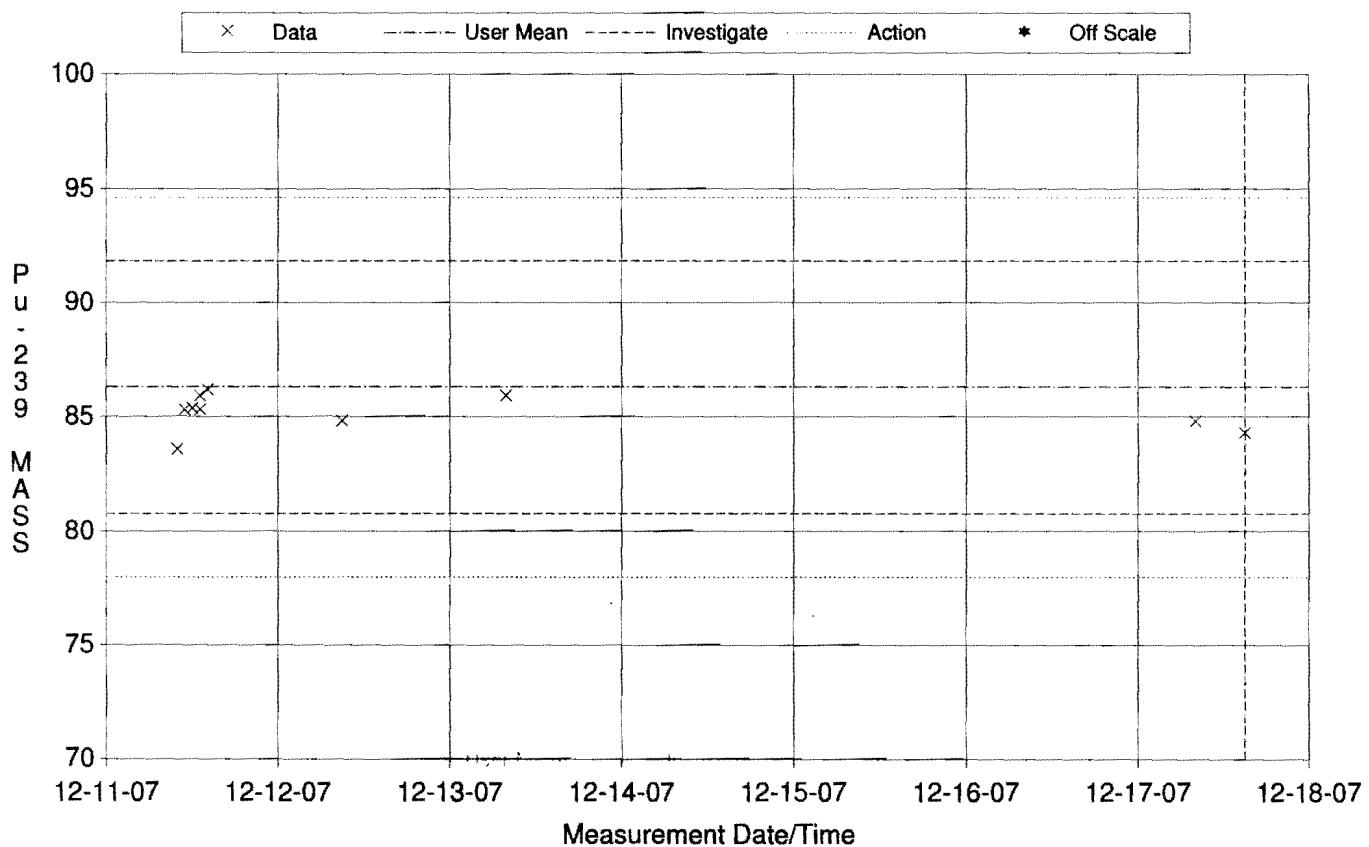
***** G E N I E Q U A L I T Y A S S U R A N C E *****
*****Full Parameter Results Report
12-18-07 7:36:26 AM

QA File: C:\WAS\CTRS\CTR1\ARR1\A05_CAL.QA
Description: Pu-239 MASS
Parameter Units: grams
Parameter Type: Nuclide

User Mean: 8.6280E+01
User Std. Deviation: 2.7700E+00

Measurement Time	Sample ID	Analyst	Value (grams)	Flags
12-11-07 9:56:06 AM	S100-2487	System Ma	8.3488E+01	:
12-11-07 10:59:08 AM	S100-2488	System Ma	8.5201E+01	:
12-11-07 12:02:30 PM	S100-2489	System Ma	8.5276E+01	:
12-11-07 1:06:13 PM	S100-2490	System Ma	8.5214E+01	:
12-11-07 1:08:30 PM	S100-2491	System Ma	8.5809E+01	:
12-11-07 2:12:43 PM	S100-2492	System Ma	8.6090E+01	:
12-12-07 8:56:08 AM	S100-2494	System Ma	8.4725E+01	:
12-13-07 7:48:34 AM	S100-2501	System Ma	8.5831E+01	:
12-17-07 8:02:13 AM	S100-2508	System Ma	8.4704E+01	:
12-17-07 2:58:20 PM	S100-2514	System Ma	8.4217E+01	:

Flags Key: LU = Lower/Upper Bounds Test (Ab = Above, Be = Below)
SD = Sample Driven N-Sigma Test (In = Investigate, Ac = Action)
UD = User Driven N-Sigma Test (In = Investigate, Ac = Action)
BS = Measurement Bias Test (In = Investigate, Ac = Action)



QA Filename : C:\WAS\CTRS\CTR1\ARR1\A05_CAL.QAF

Parameter Description : Pu-239 MASS (grams)

Selection Dates : 12-11-07 12:00:00 AM - 12-17-07 2:58:20 PM

User Mean +- Std Dev : 86.280 +- 2.77e+00

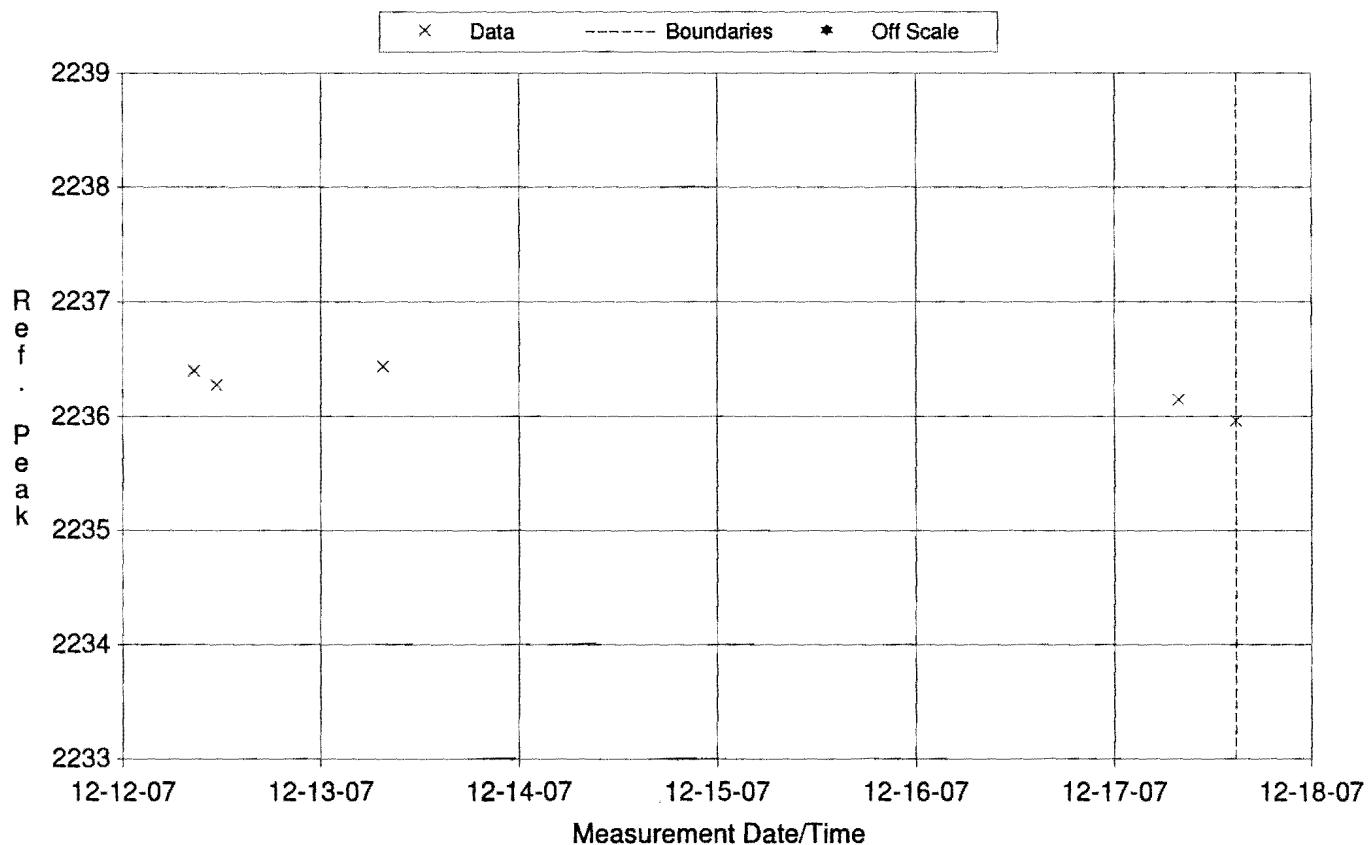
Measurement Date/Time

: C:\WAS\CTRS\CTR1\ARR1\A05_CAL.QAF

Parameter Description : Pu-239 MASS (grams)

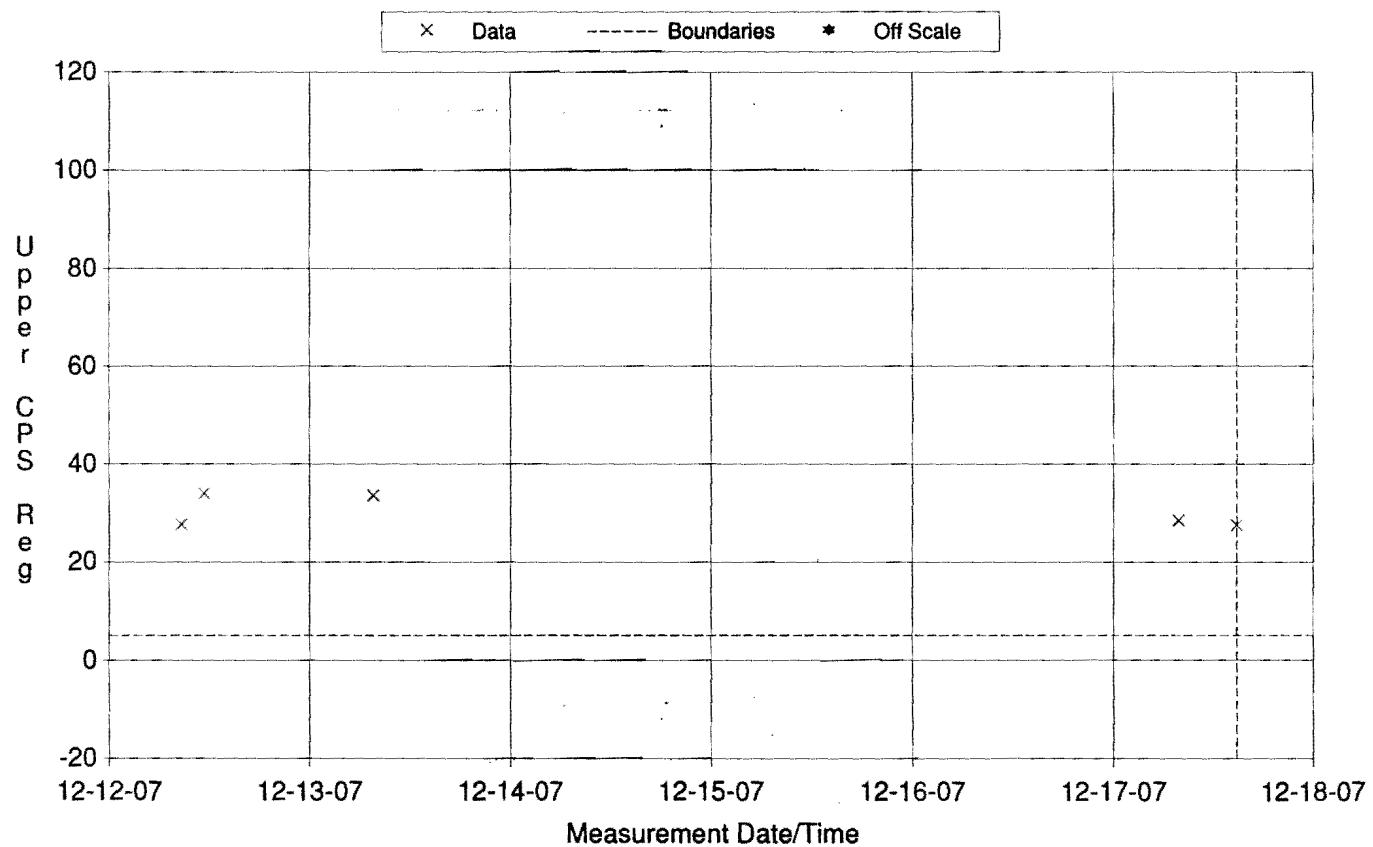
: 12-11-07 12:00:00 AM - 12-17-07 2:58:20 PM

User Mean +- Std Dev : 86.280 +- 2.77e+00



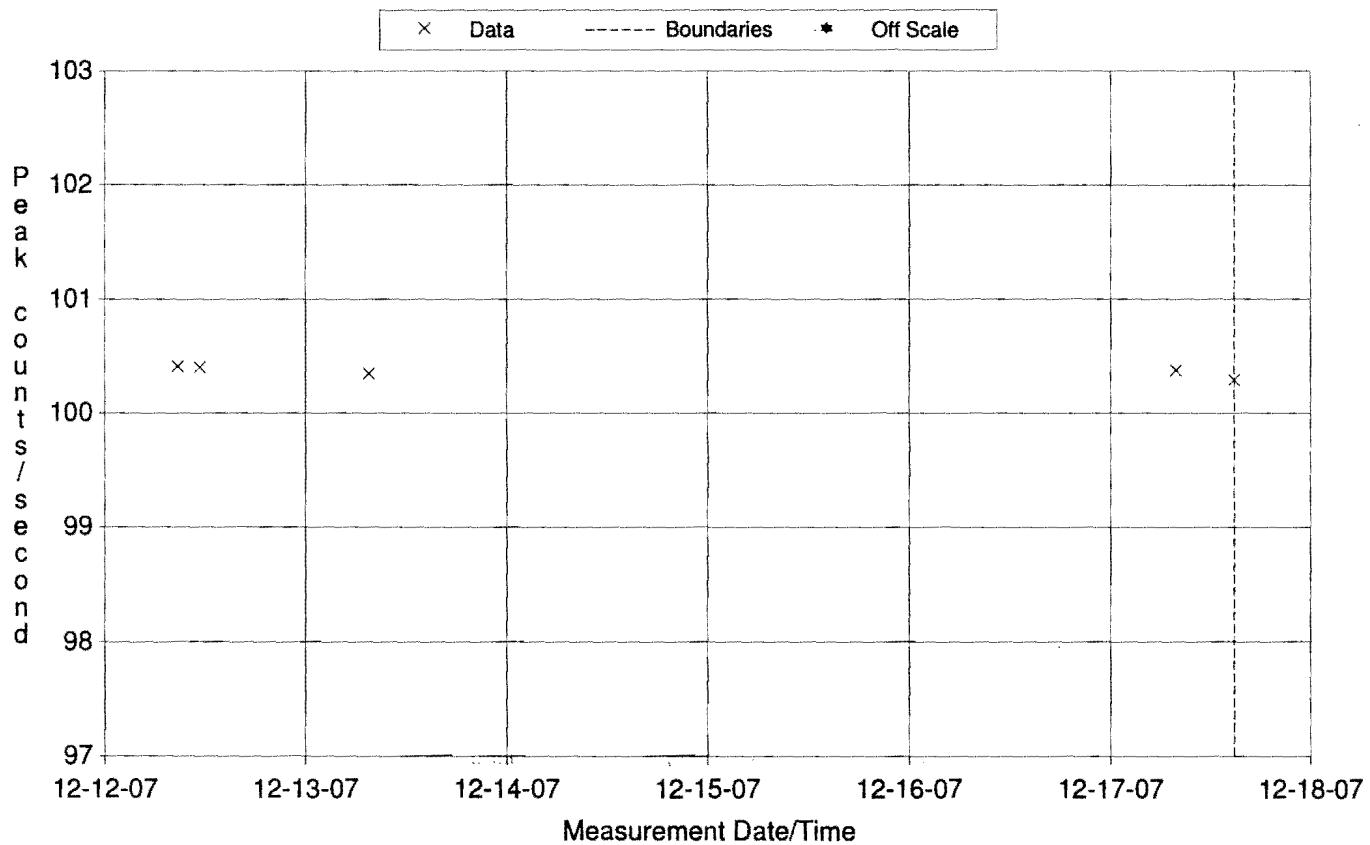
QA Filename : C:\WAS\CTRS\CTR1\ARR1\S11_BCK.QAF
 Parameter Description : Ref. Peak (keV)
 Selection Dates : 12-12-07 12:00:00 AM - 12-17-07 2:46:15 PM
 Lower/Upper Boundaries : 2234.000 - 2238.000

C:\WAS\CTRS\CTR1\ARR1\S11_BCK.QAF
 Ref. Peak (keV)
 12-12-07 12:00:00 AM - 12-17-07 2:46:15 PM
 2234.000 - 2238.000



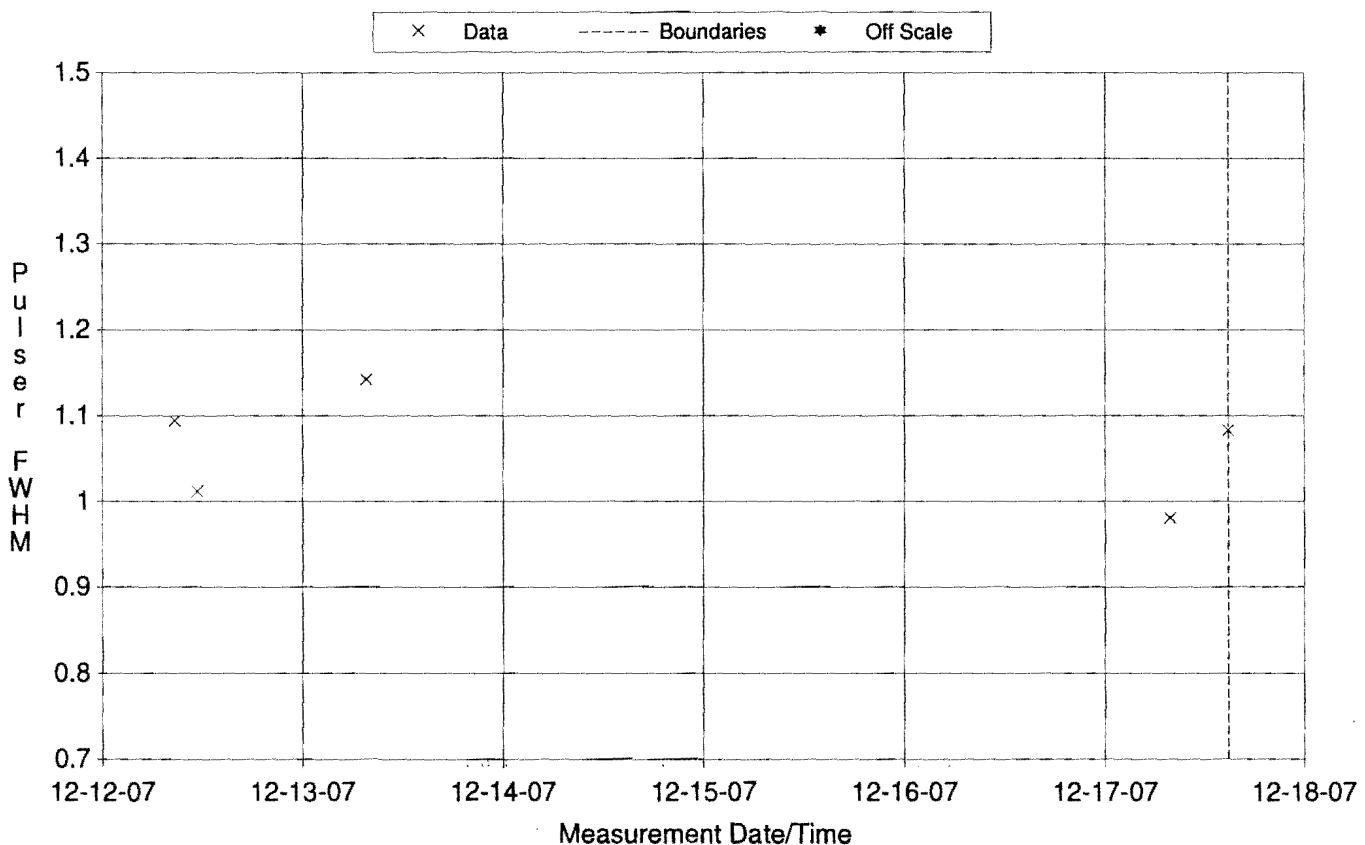
QA Filename : C:\WAS\CTRS\CTR1\ARR1\S11_BCK.QAF
Parameter Description : Upper CPS Reg (cps)
Selection Dates : 12-12-07 12:00:00 AM - 12-17-07 2:46:15 PM
Lower/Upper Boundaries : 5.000 - 100.000

12-15-07
Measurement date :
C:\WAS\CTRS\CTR1\ARR1\S11_BCK.QAF
Upper CPS Reg



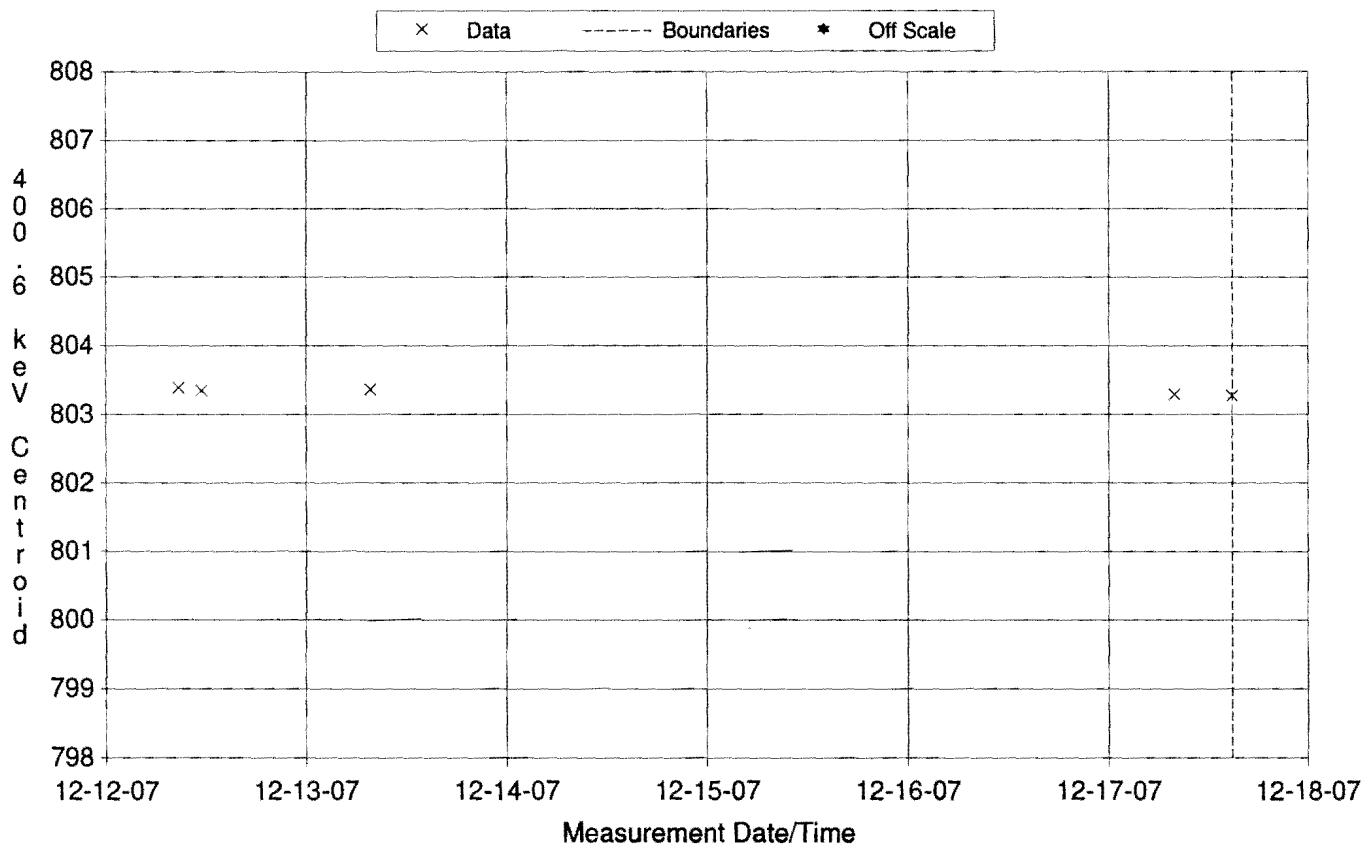
QA Filename : C:\WAS\CTRS\CTR1\ARR1\S11_BCK.QAF
Parameter Description : Peak counts/second (cps)
Selection Dates : 12-12-07 12:00:00 AM - 12-17-07 2:46:15 PM
Lower/Upper Boundaries : 98.000 - 102.000

QA Filename : C:\WAS\CTRS\CTR1\ARR1.QAF
Parameter Description : Peak counts/second (cps)
Selection Dates : 12-12-07 12:00:00 AM - 12-17-07 2:46:15 PM



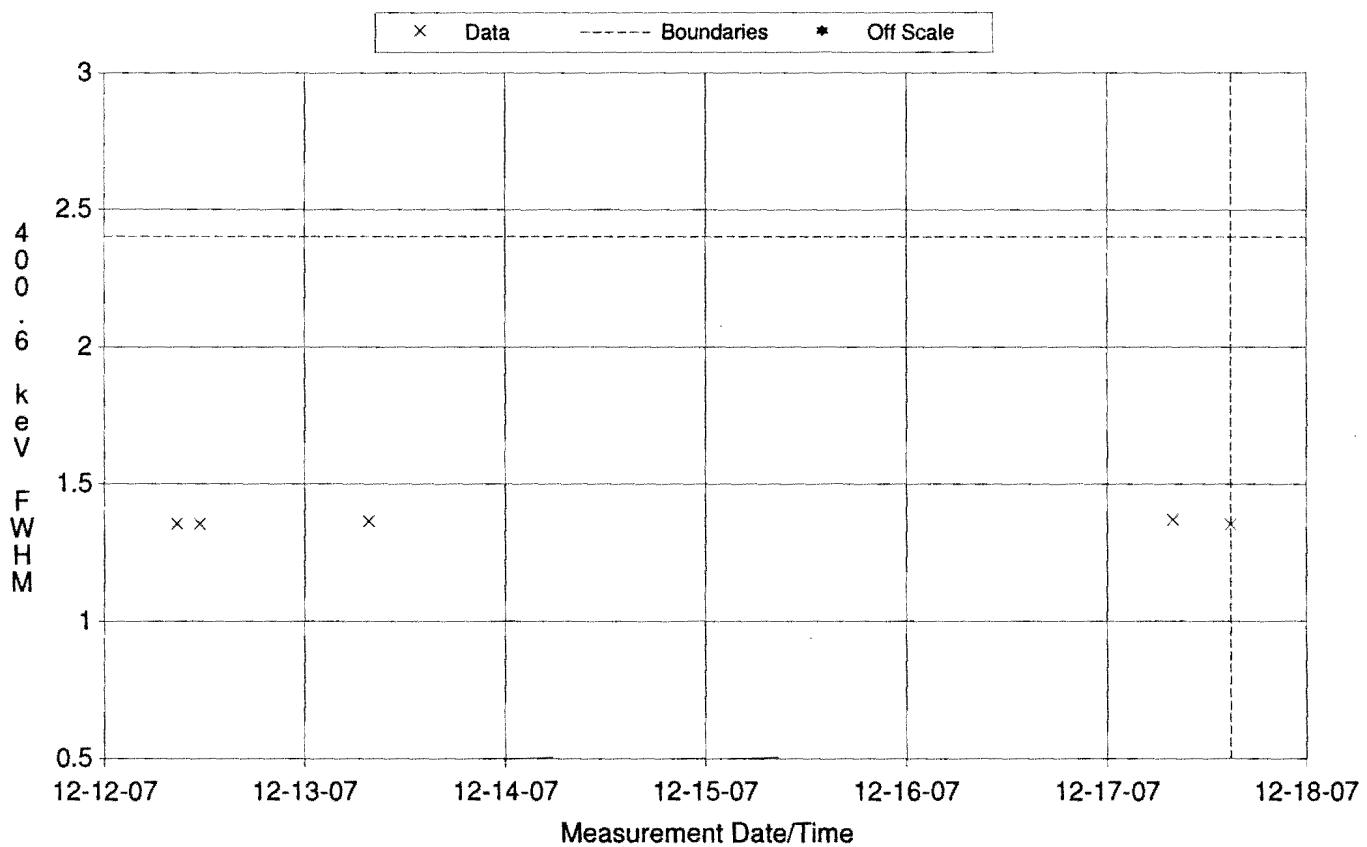
QA Filename : C:\WAS\CTRS\CTR1\ARR1\S11_BCK.QAF
 Parameter Description : Pulser FWHM (keV)
 Selection Dates : 12-12-07 12:00:00 AM - 12-17-07 2:46:15 PM
 Lower/Upper Boundaries : 0.900 - 1.400

C:\WAS\CTRS\CTR1\ARR1\S11_BCK.QAF
 Pulser FWHM (keV)
 12-12-07 12:00:00 AM - 12-17-07 2:46:15 PM
 0.900 - 1.400



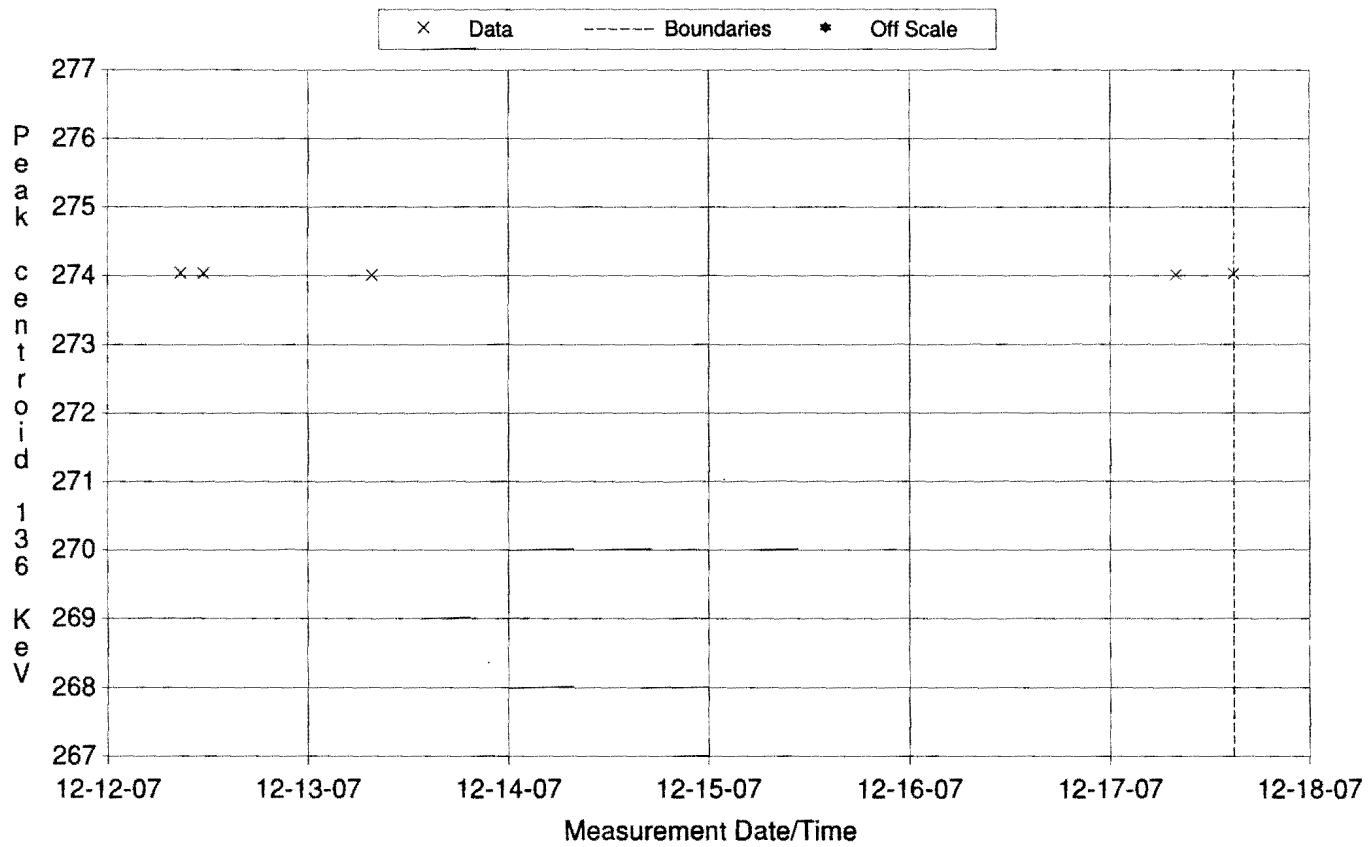
QA Filename : C:\WAS\CTRS\CTR1\ARR1\T11_BCK.QAF
 Parameter Description : 400.6 keV Centroid (ch)
 Selection Dates : 12-12-07 12:00:00 AM - 12-17-07 2:49:44 PM
 Lower/Upper Boundaries : 800.000 - 806.000

12-14-07 12-15-07
 Measurement Date/Time
 400.6 keV Centroid (ch)



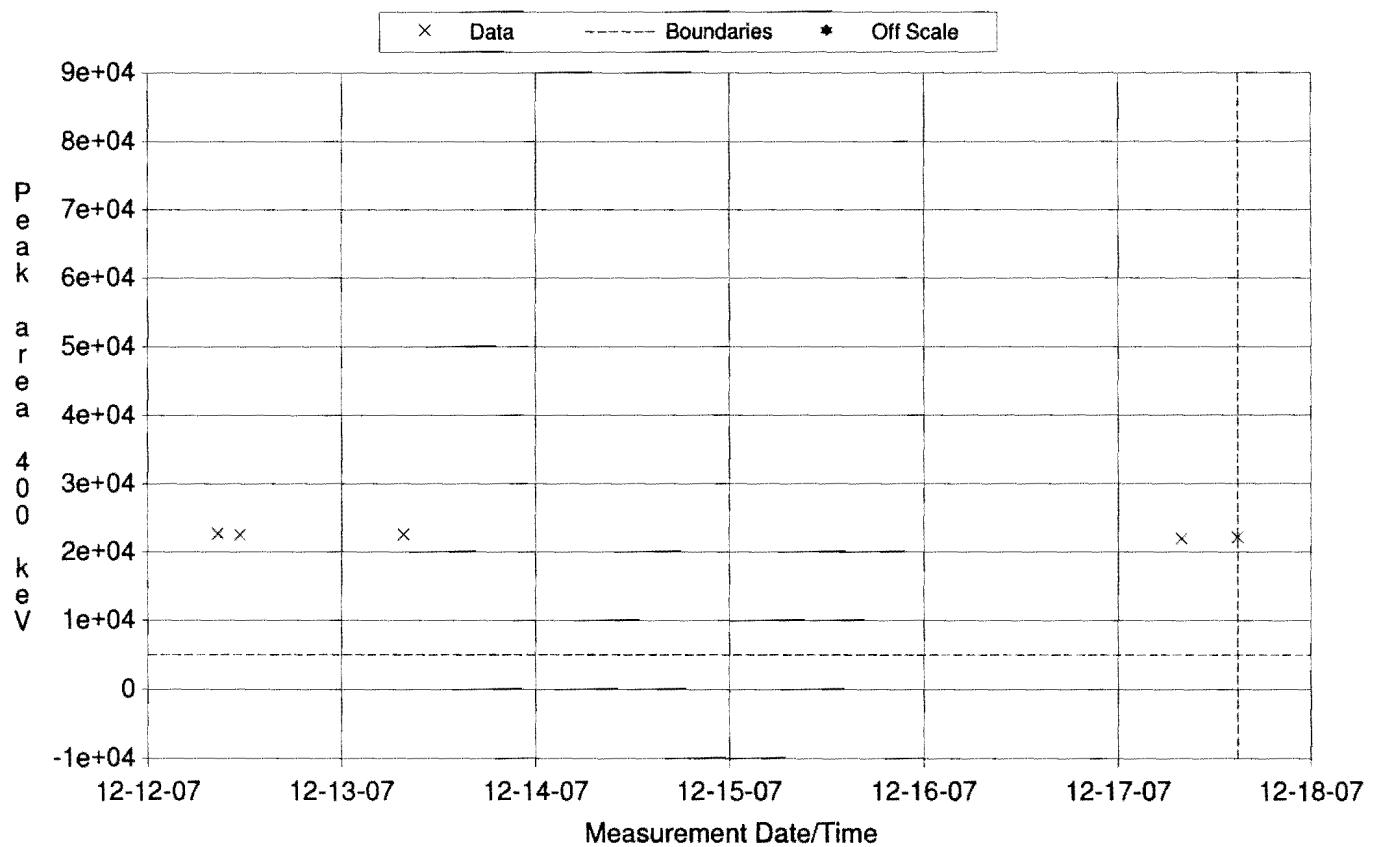
QA Filename : C:\WAS\CTRS\CTR1\ARR1\T11_BCK.QAF
Parameter Description : 400.6 keV FWHM (keV)
Selection Dates : 12-12-07 12:00:00 AM - 12-17-07 2:49:44 PM
Lower/Upper Boundaries : 1.000 - 2.400

C:\WAS\CTRS\CTR1\ARR1\T11_BCK.QAF
 : 400.6 keV FWHM (keV)
 : 12-12-07 12:00:00 AM
 : 1.000 - 2.400



QA Filename : C:\WAS\CTRS\CTR1\ARR1\T11_BCK.QAF
 Parameter Description : Peak centroid 136 KeV (ch)
 Selection Dates : 12-12-07 12:00:00 AM - 12-17-07 2:49:44 PM
 Lower/Upper Boundaries : 269.000 - 275.000

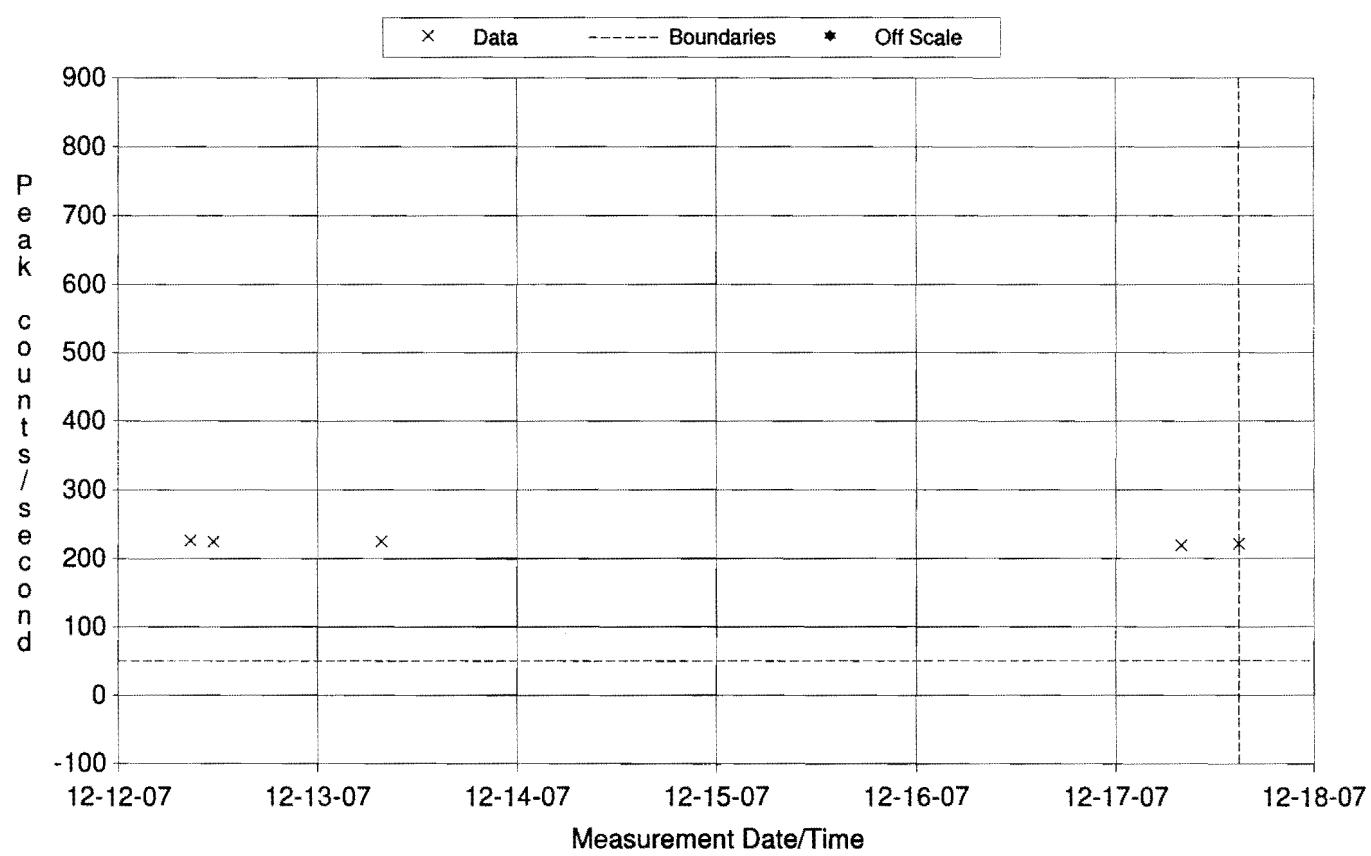
12-14-07
 Measurement Date/Time
 12-14-07



QA Filename : C:\WAS\CTRS\CTR1\ARR1\T11_BCK.QAF
Parameter Description : Peak area 400 keV (counts)
Selection Dates : 12-12-07 12:00:00 AM - 12-17-07 2:49:44 PM
Lower/Upper Boundaries : 5000.000 - 70000.000

12-12-07 12-13-07 12-14-07 12-15-07 12-16-07 12-17-07 12-18-07
Measurement Date/Time

12-12-07 12-13-07 12-14-07 12-15-07 12-16-07 12-17-07 12-18-07



QA Filename : C:\WAS\CTRS\CTR1\ARR1\T11_BCK.QAF
Parameter Description : Peak counts/second (cps)
Selection Dates : 12-12-07 12:00:00 AM - 12-17-07 2:49:44 PM
Lower/Upper Boundaries : 50.000 - 700.000

12-14-07 12:00:00 AM

12-17-07 2:49:44 PM

Peak counts/second

50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900

50.000 700.000

Radioassay Data Sheet
Procedure ID & Rev: WCP-55 03/07/2002

Wed Dec 19 05:03:04 2007
Software Version: GWAS v2.3bGEN

Drum ID	:	LL85901335	Gross Weight (kg)	:	100.2
Sequence Number	:	2512	Fill Height (%)	:	100.0
Assay Date	:	12/17/07 13:03:17	Density (g/cc)	:	0.34
Batch Number	:		Net Weight (kg)	:	70.10
Site ID	:		Waste Matrix Code	:	
			TRUCON	:	

Errors at 1.00 Sigma					
TRU Alpha Activity Concentration:	8.95e-06	+/-	1.44e-06	Ci/g	
Total Pu-239 Equiv Activity:	6.40e-01	+/-	1.01e-01	Ci	
Total Pu-239 Fissile Gram Equiv:	6.90e+00	+/-	1.55e+00	g	
Decay Heat:	2.00e-02	+/-	3.19e-03	W	
Total Pu Mass:	7.04e+00	+/-	1.55e+00	g	
TMU:	23.36%				
Waste Classification:	TRU				

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
Pu-238	3.42e-02	1.01e+01
Pu-239	9.38e+01	2.73e-01
Pu-240	5.99e+00	4.24e+00
Pu-241	1.13e-01	5.36e+00
Pu-242	3.14e-02	1.10e+01
Am-241	5.15e-01	2.36e+00
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	3.81e+00	2.44e+01

Activity Errors

Isotope	1.00 Sigma Mass	Alpha Activity/ Error/Isotope	1.00 Sigma Isotope	Error/Isotope	MDA (g)
Isotope	(g)	Mass (g)	(Ci)	(Ci)	(g)
Pu-238	2.41e-03	6.13e-04	4.12e-02	1.05e-02	5.40e-04
Pu-239	6.61e+00	1.54e+00	4.10e-01	9.57e-02	1.04e-01
Pu-240	4.22e-01	1.00e-01	9.57e-02	2.27e-02	0.00e+00
Pu-241	7.94e-03	1.90e-03	8.21e-01	1.97e-01	1.65e-03
Pu-242	2.21e-03	5.72e-04	8.69e-06	2.24e-06	0.00e+00
Am-241	2.35e-02	5.99e-03	8.04e-02	2.05e-02	4.35e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	3.40e-03	8.32e-04	2.40e-06	5.87e-07	5.74e-04
U-235	2.68e-01	9.06e-02	5.79e-07	1.96e-07	6.42e-02
*U-238	<LLD	0.00e+00	0.00e+00	0.00e+00	2.00e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	4.82e-01
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Date

Reviewer Signature

12-19-07
Date

AUTOMATED INDEPENDENT TECHNICAL REVIEW BASED ON WCP-55 03/07/2002

Software Version: GWAS v2.3bGEN
Counter Number: SGS
Data Review for Container: LL85901335
Item Description Code: \Count Type: DEBRIS
Sequence Number: 2512
Assayed on: 12/17/07 13:03:17
Report Generated: 12/19/07 17:02:49
AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

Pu-240 Wt Pct <5.99> +/- 2 Sigma error <0.51>
is within limits
Pu-240 Wt Pct error <4.24> is within limits
Pu-238 Wt Pct error <10.13> is within limits

REVIEW QFIT <1.43> > <1.20> Review MGA Results

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.337> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <2.40e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <0.56> is acceptable in Segment 1
Pulser value <0.99> is within range in Segment 1
DEAD TIME percentage <0.60> is acceptable in Segment 2
Pulser value <0.99> is within range in Segment 2
DEAD TIME percentage <0.62> is acceptable in Segment 3
Pulser value <1.00> is within range in Segment 3
DEAD TIME percentage <0.68> is acceptable in Segment 4
Pulser value <1.00> is within range in Segment 4
DEAD TIME percentage <0.69> is acceptable in Segment 5
Pulser value <1.00> is within range in Segment 5
DEAD TIME percentage <0.70> is acceptable in Segment 6
Pulser value <1.00> is within range in Segment 6
DEAD TIME percentage <0.68> is acceptable in Segment 7
Pulser value <1.00> is within range in Segment 7
DEAD TIME percentage <0.70> is acceptable in Segment 8
Pulser value <1.00> is within range in Segment 8
DEAD TIME percentage <0.98> is acceptable in Segment 9
Pulser value <1.00> is within range in Segment 9
DEAD TIME percentage <1.30> is acceptable in Segment 10
Pulser value <1.00> is within range in Segment 10
DEAD TIME percentage <1.20> is acceptable in Segment 11
Pulser value <0.99> is within range in Segment 11
DEAD TIME percentage <0.85> is acceptable in Segment 12
Pulser value <1.00> is within range in Segment 12
DEAD TIME percentage <0.71> is acceptable in Segment 13
Pulser value <1.00> is within range in Segment 13
DEAD TIME percentage <0.68> is acceptable in Segment 14
Pulser value <0.99> is within range in Segment 14
DEAD TIME percentage <0.60> is acceptable in Segment 15
Pulser value <0.99> is within range in Segment 15
DEAD TIME percentage <0.60> is acceptable in Segment 16

Pulser value <0.98> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
Transmission results are acceptable in Segment 2
Transmission results are acceptable in Segment 3
Transmission results are acceptable in Segment 4
Transmission results are acceptable in Segment 5
Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

All energy peaks within <3.00e+00> RCHISQ limit

Section 7 - FGE MASS REVIEW

FGE Mass <8.45> is within limits

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

Am-241 ratio <281.06> is above lower limit <200.00>
Np-237 ratio <1942.84> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <6.61> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

REVIEW Cs-137 Z Value <2.94> exceeds limit <1.96>

OK.

Independent Reviewer:

Date: 12-19-07

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS
Data Review for Container: LL85901335

Item Description Code:

Sequence Number: 2512

Assayed on: 12/17/07 13:03:17

AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA QFIT is greater than upper limit.	OK. NQFIT OK
SECTION 9 - IDC COUNT TYPE IDC is not available.	N/A
SECTION 12 - CS-137 INTERFERENCE TEST Potential Cs-137 presence.	OK. Checked.

Technical Reviewer: Robert J. Haslitt Date: 12-19-07

M G A R E P O R T

Report generated on:

12-19-07 4:53:43 PM

MGA version: MGA V9.5 CI

Spectrum ID: 11202512.CNF Sens : 30.0% LT: 56.2 Mins DT: 0.62
Measurement date: 12-17-07 Declared date: 12-17-07

Sample ID: LL85901335 Detector: Total counts: 6.667E+05

Pu g/cm² = 0.3027 Cd g/cm² = 1.6200 FWHM at 122 keV = 625 eV
QFIT = 1.43 FWHM at 208 keV = 738 eV
NQFIT = 1.04

Isotope	Relative to Pu-239	%*	%	Relative to Pu-241	%*	Isotope analysis at					
						Meas. date	Decl. date	% weight	%Err	% weight	%Err
Pu-238	0.000364	10.2	10.0	0.3033	10.5	0.03419	10.13	0.03419	10.13		
Pu-239	1.000000	0.0	2.0	832.4257	5.4	93.83488	0.27	93.83488	0.27		
Pu-240	0.063801	4.5	4.1	53.1096	6.3	5.98676	4.24	5.98676	4.24		
Pu-241	0.001201	5.4	4.9	1.0000	0.0	0.11272	5.36	0.11272	5.36		
Pu-242	(New alg.)			0.2789 (11)		0.03144 (11)		0.03144 (11)			
Am-241	0.005489	2.5	1.6	4.5691	5.1	0.51505	2.36	0.51505	2.36		
U-235	0.040554	24.4	24.5			3.80536	24.44	3.80536	24.44		

Pu-240 effective (meas. date) = 6.126 +/- 4.57%
Am-241 separated about 35.323 +/- 0.695 years ago
Am/Pu-241 weight ratio = 4.56910 +/- 5.15%

Messages :

Lead x-rays detected.
Pu-241/Pu-239 efficiency changed in MGACAL by 2%.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Gamma Waste Assay

Sample Information

File Name: C:\WAS\DATA\2600\11102512.S11
Sample ID: LL85901335 Count Sequence Number: 2512
Assay Start: 12-17-07 1:03:19 PM
Description 1:
Description 2:
Location:
Comment:
Waste Type:
Weight: Gross: 100200. g Net: 70100.0 g
Density: 0.337 g /ml

Container Type: 55 Gal Galv 66.3
Container: Volume: 208000. ml Full: 100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: 55 Gal Galv 66.3
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma
Reference Source Date: Reference Source Rate: 1.00E+02 cps
Geometric Correction Factor(SWCONTGCF): 0.760
Date of efficiency calibration approval: 8-27-2003 2:05:34 PM
Mu Factors response file: Lucite response
Transmission Calib. Time: 12-10-2007 3:06:26 PM 26364

Reviewed by:



Date: 12-19-07

Segment Results

Segment: 1

Detector: DET01 (# 1)

Position: 1

Elapsed Live Time: 114.36 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.421 +/- 0.0122
SE-75	264.65	0.000 +/- 0.0000	0.480 +/- 0.0103
SE-75	279.53	0.000 +/- 0.0000	0.493 +/- 0.0111
SE-75	400.65	0.000 +/- 0.0000	0.532 +/- 0.0132

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.16	2.80E+00 +/-	2.26E-01	1.47E+00 6.33E-06 +/- 1.17E-05
2	129.29	2.23E-01 +/-	1.25E-01	1.37E+00 3.01E-04 +/- 2.13E-05
3	152.68	2.26E-01 +/-	1.23E-01	1.35E+00 3.67E-04 +/- 4.47E-05
4	867.39	8.68E-03 +/-	8.68E-03	1.17E+00 1.02E-04 +/- 5.64E-06
5	1112.12	6.08E-02 +/-	2.30E-02	1.15E+00 8.48E-05 +/- 4.39E-06
6	2236.00	1.00E+02 +/-	1.50E+00	1.11E+00 3.40E-05 +/- 2.15E-05

Segment: 2

Detector: DET01 (# 1)

Position: 2

Elapsed Live Time: 114.31 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.275 +/- 0.0091
SE-75	264.65	0.000 +/- 0.0000	0.328 +/- 0.0071
SE-75	279.53	0.000 +/- 0.0000	0.343 +/- 0.0080
SE-75	400.65	0.000 +/- 0.0000	0.391 +/- 0.0100

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.16	7.94E+00 +/- 3.50E-01	1.75E+00	1.33E-04 +/- 2.14E-04
2	99.93	7.81E-01 +/- 2.36E-01	1.62E+00	3.11E-04 +/- 7.31E-05
M 3	126.19	2.07E-01 +/- 6.75E-02	1.58E+00	3.82E-04 +/- 2.27E-05
m 4	130.00	7.62E-01 +/- 1.46E-01	1.58E+00	3.89E-04 +/- 2.52E-05
5	152.68	1.92E-01 +/- 1.33E-01	1.56E+00	4.18E-04 +/- 4.48E-05
6	185.71	1.41E-01 +/- 8.84E-02	1.53E+00	4.30E-04 +/- 5.06E-05
7	208.72	1.46E-01 +/- 8.52E-02	1.52E+00	4.25E-04 +/- 4.48E-05
8	375.70	1.06E-01 +/- 5.82E-02	1.41E+00	3.13E-04 +/- 1.75E-05
9	413.70	7.75E-02 +/- 4.19E-02	1.39E+00	2.89E-04 +/- 1.85E-05
10	443.98	4.99E-02 +/- 3.79E-02	1.38E+00	2.72E-04 +/- 1.86E-05
11	511.31	1.56E-01 +/- 7.33E-02	1.35E+00	2.39E-04 +/- 1.72E-05
12	662.42	3.60E-02 +/- 3.07E-02	1.30E+00	1.86E-04 +/- 1.15E-05
13	1085.91	2.61E-02 +/- 1.50E-02	1.23E+00	1.20E-04 +/- 5.31E-06
14	1408.01	1.74E-02 +/- 1.23E-02	1.20E+00	1.02E-04 +/- 6.88E-06
15	2236.00	1.00E+02 +/- 1.50E+00	1.16E+00	9.73E-05 +/- 5.41E-05

Segment: 3

Detector: DET01 (# 1)

Position: 3

Elapsed Live Time: 114.29 sec

Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.087 +/- 0.0046
SE-75	264.65	0.000 +/- 0.0000	0.138 +/- 0.0032
SE-75	279.53	0.000 +/- 0.0000	0.147 +/- 0.0038
SE-75	400.65	0.000 +/- 0.0000	0.177 +/- 0.0053

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	50.18	1.08E+00 +/- 2.61E-01	2.78E+00	3.94E-05 +/- 1.90E-05
2	60.20	1.40E+01 +/- 4.75E-01	2.60E+00	8.09E-05 +/- 2.79E-05
3	99.77	1.26E+00 +/- 2.81E-01	2.31E+00	2.99E-04 +/- 3.02E-05
4	129.29	1.48E+00 +/- 1.66E-01	2.21E+00	4.18E-04 +/- 2.23E-05
5	208.68	3.93E-01 +/- 9.42E-02	2.03E+00	4.92E-04 +/- 2.59E-05
6	279.54	2.31E-01 +/- 8.14E-02	1.90E+00	4.36E-04 +/- 2.07E-05

Canberra SGS Assay Report
Instrument ID: SGS

12-19-07 5:02:32 PM
Can ID: LL85901335

Page 4
Count Sequence #: 2512

7	333.61	2.14E-01	+/-	7.45E-02	1.85E+00	3.84E-04	+/-	1.63E-05
8	345.41	1.25E-01	+/-	7.45E-02	1.84E+00	3.73E-04	+/-	1.56E-05
9	375.93	2.33E-01	+/-	6.73E-02	1.82E+00	3.46E-04	+/-	1.40E-05
10	413.70	2.50E-01	+/-	7.11E-02	1.79E+00	3.16E-04	+/-	1.28E-05
11	511.85	1.46E-01	+/-	4.86E-02	1.70E+00	2.55E-04	+/-	1.13E-05
12	867.39	6.10E-02	+/-	2.31E-02	1.51E+00	1.51E-04	+/-	6.93E-06
13	964.13	1.74E-02	+/-	1.23E-02	1.48E+00	1.39E-04	+/-	5.75E-06
14	1085.91	2.61E-02	+/-	1.51E-02	1.44E+00	1.28E-04	+/-	4.75E-06
15	2236.00	1.00E+02	+/-	1.50E+00	1.31E+00	1.32E-04	+/-	3.24E-05

Segment: 4

Detector: DET01 (# 1)

Position: 4

Elapsed Live Time: 114.22 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS		
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.020 +/- 0.0028
SE-75	264.65	0.000 +/- 0.0000	0.058 +/- 0.0015
SE-75	279.53	0.000 +/- 0.0000	0.065 +/- 0.0021
SE-75	400.65	0.000 +/- 0.0000	0.087 +/- 0.0032

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.18	1.95E+01	+/- 5.61E-01	3.86E+00 3.62E-05 +/- 5.76E-05
2	104.09	7.24E-01	+/- 2.10E-01	3.31E+00 2.92E-04 +/- 5.28E-05
3	129.29	1.81E+00	+/- 1.98E-01	3.17E+00 4.12E-04 +/- 2.61E-05
4	208.61	3.50E-01	+/- 1.46E-01	2.69E+00 4.80E-04 +/- 5.05E-05
5	311.90	2.18E-01	+/- 8.65E-02	2.32E+00 3.77E-04 +/- 1.75E-05
6	345.72	1.53E-01	+/- 6.69E-02	2.27E+00 3.46E-04 +/- 1.65E-05
7	375.66	2.62E-01	+/- 1.11E-01	2.23E+00 3.21E-04 +/- 1.71E-05
8	413.70	4.74E-01	+/- 7.23E-02	2.18E+00 2.94E-04 +/- 1.78E-05
9	423.40	9.59E-02	+/- 4.20E-02	2.17E+00 2.87E-04 +/- 1.79E-05
10	778.90	8.72E-03	+/- 8.72E-03	1.81E+00 1.66E-04 +/- 8.40E-06
11	867.39	3.31E-02	+/- 2.26E-02	1.75E+00 1.52E-04 +/- 7.25E-06
12	2236.00	1.00E+02	+/- 1.50E+00	1.45E+00 7.00E-05 +/- 3.84E-05

Segment: 5

Detector: DET01 (# 1)

Position: 5

Elapsed Live Time: 114.21 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.011 +/- 0.0017
SE-75	264.65	0.000 +/- 0.0000	0.032 +/- 0.0010
SE-75	279.53	0.000 +/- 0.0000	0.033 +/- 0.0013
SE-75	400.65	0.000 +/- 0.0000	0.046 +/- 0.0022

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.20	2.17E+01 +/- 6.09E-01	4.10E+00	4.81E-05 +/- 8.24E-05
2	99.35	1.22E+00 +/- 2.86E-01	3.81E+00	2.77E-04 +/- 7.11E-05
M 3	126.03	3.01E-01 +/- 8.63E-02	3.62E+00	3.97E-04 +/- 2.37E-05
m 4	130.00	2.97E+00 +/- 2.89E-01	3.60E+00	4.09E-04 +/- 2.72E-05
5	204.15	2.15E-01 +/- 1.08E-01	3.12E+00	4.59E-04 +/- 5.30E-05
6	208.66	9.17E-01 +/- 1.66E-01	3.10E+00	4.56E-04 +/- 5.12E-05
7	229.05	1.44E-01 +/- 8.03E-02	2.99E+00	4.40E-04 +/- 4.21E-05
8	279.54	2.71E-01 +/- 9.81E-02	2.80E+00	3.92E-04 +/- 2.28E-05
9	300.10	2.17E-01 +/- 9.51E-02	2.76E+00	3.72E-04 +/- 1.87E-05
10	311.90	1.35E-01 +/- 8.92E-02	2.73E+00	3.62E-04 +/- 1.74E-05
11	345.83	2.79E-01 +/- 7.72E-02	2.67E+00	3.33E-04 +/- 1.69E-05
12	375.75	5.10E-01 +/- 1.18E-01	2.63E+00	3.11E-04 +/- 1.79E-05
13	393.53	3.07E-01 +/- 7.02E-02	2.60E+00	2.99E-04 +/- 1.85E-05
14	413.70	8.09E-01 +/- 1.03E-01	2.56E+00	2.86E-04 +/- 1.90E-05
15	452.06	8.11E-02 +/- 3.91E-02	2.49E+00	2.65E-04 +/- 1.91E-05
16	662.42	5.78E-02 +/- 2.81E-02	2.18E+00	1.90E-04 +/- 1.21E-05
17	778.90	4.26E-02 +/- 3.35E-02	2.06E+00	1.66E-04 +/- 8.62E-06
18	867.39	4.36E-02 +/- 1.95E-02	1.99E+00	1.52E-04 +/- 7.20E-06
19	1001.03	3.32E-02 +/- 2.24E-02	1.90E+00	1.35E-04 +/- 6.17E-06
20	1112.12	8.73E-03 +/- 8.73E-03	1.84E+00	1.23E-04 +/- 5.54E-06
21	2236.00	1.00E+02 +/- 1.50E+00	1.58E+00	5.76E-05 +/- 3.29E-05

Segment: 6 Detector: DET01 (# 1) Position: 6

Elapsed Live Time: 114.20 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:
Minimum transmission used.

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.005 +/- 0.0025
SE-75	264.65	0.000 +/- 0.0000	0.016 +/- 0.0006
SE-75	279.53	0.000 +/- 0.0000	0.017 +/- 0.0009
SE-75	400.65	0.000 +/- 0.0000	0.025 +/- 0.0015

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.74	9.21E-01 +/- 3.50E-01	4.10E+00	2.09E-05 +/- 5.47E-05
2	60.19	1.94E+01 +/- 5.82E-01	4.10E+00	6.09E-05 +/- 9.94E-05
3	99.38	1.98E+00 +/- 2.68E-01	4.10E+00	3.06E-04 +/- 7.49E-05
4	129.29	2.13E+00 +/- 2.42E-01	4.10E+00	4.31E-04 +/- 2.73E-05
5	148.57	4.36E-01 +/- 2.05E-01	3.99E+00	4.69E-04 +/- 4.84E-05
6	204.27	4.03E-01 +/- 1.28E-01	3.60E+00	4.75E-04 +/- 5.26E-05
7	208.67	5.02E-01 +/- 2.10E-01	3.58E+00	4.72E-04 +/- 5.09E-05
8	279.54	2.38E-01 +/- 9.20E-02	3.23E+00	4.11E-04 +/- 2.35E-05
9	333.69	4.09E-01 +/- 1.03E-01	3.11E+00	3.65E-04 +/- 1.73E-05
10	345.71	3.42E-01 +/- 7.70E-02	3.09E+00	3.55E-04 +/- 1.74E-05
11	375.64	4.80E-01 +/- 1.14E-01	3.03E+00	3.34E-04 +/- 1.84E-05
12	383.48	1.25E-01 +/- 8.11E-02	3.02E+00	3.28E-04 +/- 1.87E-05
13	393.60	3.19E-01 +/- 5.99E-02	3.00E+00	3.22E-04 +/- 1.90E-05
14	413.70	4.28E-01 +/- 8.17E-02	2.95E+00	3.09E-04 +/- 1.95E-05
15	452.54	1.55E-01 +/- 4.46E-02	2.86E+00	2.88E-04 +/- 1.97E-05
16	1112.12	8.74E-03 +/- 8.74E-03	2.04E+00	1.31E-04 +/- 5.52E-06
17	2236.00	1.00E+02 +/- 1.50E+00	1.72E+00	4.34E-05 +/- 2.42E-05

Segment: 7 Detector: DET01 (# 1) Position: 7

Elapsed Live Time: 114.22 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.088 +/- 0.0047
SE-75	264.65	0.000 +/- 0.0000	0.135 +/- 0.0031
SE-75	279.53	0.000 +/- 0.0000	0.142 +/- 0.0037
SE-75	400.65	0.000 +/- 0.0000	0.166 +/- 0.0050

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.95	1.23E+00 +/-	3.44E-01	2.78E+00 2.82E-06 +/- 6.66E-06
2	60.19	1.66E+01 +/-	5.28E-01	2.59E+00 1.61E-05 +/- 2.39E-05
3	99.32	1.11E+00 +/-	2.65E-01	2.30E+00 2.43E-04 +/- 5.53E-05
M 4	125.93	5.03E-01 +/-	1.01E-01	2.22E+00 4.24E-04 +/- 2.46E-05
m 5	129.92	1.68E+00 +/-	2.12E-01	2.21E+00 4.44E-04 +/- 2.76E-05
6	208.66	3.28E-01 +/-	1.32E-01	2.04E+00 5.47E-04 +/- 5.32E-05
7	279.54	2.93E-01 +/-	1.06E-01	1.92E+00 4.58E-04 +/- 2.40E-05
8	333.66	4.58E-01 +/-	9.03E-02	1.88E+00 3.91E-04 +/- 1.76E-05
9	345.64	2.84E-01 +/-	9.49E-02	1.87E+00 3.78E-04 +/- 1.76E-05
10	375.77	2.44E-01 +/-	1.05E-01	1.85E+00 3.48E-04 +/- 1.82E-05
11	413.70	2.89E-01 +/-	7.57E-02	1.82E+00 3.17E-04 +/- 1.88E-05
12	2236.00	1.00E+02 +/-	1.50E+00	1.32E+00 5.07E-05 +/- 2.69E-05

Segment: 8

Detector: DET01 (# 1)

Position: 8

Elapsed Live Time: 114.19 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.109 +/- 0.0054
SE-75	264.65	0.000 +/- 0.0000	0.164 +/- 0.0037
SE-75	279.53	0.000 +/- 0.0000	0.171 +/- 0.0044
SE-75	400.65	0.000 +/- 0.0000	0.200 +/- 0.0058

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.76	4.48E-01 +/-	3.08E-01	2.59E+00 5.82E-05 +/- 2.90E-05
2	60.17	1.76E+01 +/-	5.47E-01	2.42E+00 1.10E-04 +/- 3.84E-05
3	99.28	1.40E+00 +/-	2.76E-01	2.17E+00 3.24E-04 +/- 3.31E-05
4	103.86	1.03E+00 +/-	2.39E-01	2.15E+00 3.44E-04 +/- 3.08E-05
5	129.29	2.03E+00 +/-	2.26E-01	2.08E+00 4.27E-04 +/- 2.26E-05
6	208.76	4.45E-01 +/-	1.88E-01	1.92E+00 4.74E-04 +/- 2.60E-05
7	229.13	3.92E-01 +/-	1.27E-01	1.89E+00 4.61E-04 +/- 2.50E-05
8	311.90	2.71E-01 +/-	1.46E-01	1.79E+00 3.88E-04 +/- 1.78E-05
9	375.74	4.56E-01 +/-	8.11E-02	1.75E+00 3.34E-04 +/- 1.38E-05

10	413.70	6.07E-01	+/-	8.33E-02	1.72E+00	3.06E-04	+/-	1.25E-05
11	662.42	4.31E-02	+/-	2.76E-02	1.55E+00	1.93E-04	+/-	9.41E-06
12	964.13	7.64E-02	+/-	2.99E-02	1.44E+00	1.39E-04	+/-	5.73E-06
13	1408.01	2.62E-02	+/-	1.51E-02	1.35E+00	1.13E-04	+/-	7.00E-06
14	2236.00	1.00E+02	+/-	1.50E+00	1.28E+00	1.19E-04	+/-	2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 113.87 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.131 +/- 0.0057
SE-75	264.65	0.000 +/- 0.0000	0.206 +/- 0.0046
SE-75	279.53	0.000 +/- 0.0000	0.211 +/- 0.0052
SE-75	400.65	0.000 +/- 0.0000	0.250 +/- 0.0069

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.90	8.42E-01 +/- 1.49E-01	3.19E+00	5.72E-09 +/- 3.47E-08
2	60.18	3.55E+01 +/- 8.25E-01	2.29E+00	1.65E-05 +/- 2.58E-05
3	88.89	5.41E-01 +/- 2.22E-01	2.09E+00	1.59E-04 +/- 6.63E-05
4	99.43	3.61E+00 +/- 4.54E-01	2.06E+00	2.36E-04 +/- 5.57E-05
5	116.44	7.34E-01 +/- 4.07E-01	2.01E+00	3.52E-04 +/- 2.76E-05
M 6	125.86	9.13E-01 +/- 1.50E-01	1.99E+00	4.04E-04 +/- 2.40E-05
m 7	129.96	4.04E+00 +/- 3.61E-01	1.98E+00	4.24E-04 +/- 2.72E-05
8	204.25	4.81E-01 +/- 1.84E-01	1.82E+00	5.14E-04 +/- 5.34E-05
9	208.71	7.97E-01 +/- 3.16E-01	1.81E+00	5.11E-04 +/- 5.15E-05
10	300.10	5.39E-01 +/- 1.72E-01	1.69E+00	3.97E-04 +/- 1.90E-05
11	311.90	1.05E+00 +/- 1.78E-01	1.68E+00	3.83E-04 +/- 1.78E-05
M 12	333.51	1.27E+00 +/- 1.85E-01	1.66E+00	3.59E-04 +/- 1.71E-05
m 13	336.36	3.61E-01 +/- 9.50E-02	1.66E+00	3.56E-04 +/- 1.71E-05
14	345.70	1.08E+00 +/- 1.61E-01	1.65E+00	3.46E-04 +/- 1.72E-05
15	375.76	2.44E+00 +/- 2.62E-01	1.63E+00	3.18E-04 +/- 1.78E-05
M 16	380.92	6.44E-01 +/- 1.20E-01	1.63E+00	3.14E-04 +/- 1.79E-05
m 17	383.36	5.69E-01 +/- 1.06E-01	1.63E+00	3.12E-04 +/- 1.80E-05
18	393.57	1.48E+00 +/- 1.43E-01	1.62E+00	3.03E-04 +/- 1.81E-05
19	413.70	3.92E+00 +/- 2.07E-01	1.61E+00	2.88E-04 +/- 1.83E-05
20	423.31	3.30E-01 +/- 8.57E-02	1.60E+00	2.82E-04 +/- 1.83E-05
21	452.11	5.11E-01 +/- 8.80E-02	1.58E+00	2.63E-04 +/- 1.81E-05
22	662.42	1.11E-01 +/- 4.27E-02	1.47E+00	1.84E-04 +/- 1.12E-05
23	722.01	6.84E-02 +/- 3.96E-02	1.44E+00	1.72E-04 +/- 9.44E-06
24	2236.00	1.00E+02 +/- 1.50E+00	1.24E+00	6.12E-05 +/- 3.31E-05

Segment: 10

Detector: DET01 (# 1)

Position: 10

Elapsed Live Time: 113.51 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Minimum transmission used.

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.005 +/- 0.0025
SE-75	264.65	0.000 +/- 0.0000	0.027 +/- 0.0009
SE-75	279.53	0.000 +/- 0.0000	0.028 +/- 0.0014
SE-75	400.65	0.000 +/- 0.0000	0.045 +/- 0.0022

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.77	5.80E-01 +/- 1.44E-01	4.10E+00	1.60E-05 +/- 1.61E-05
2	49.99	9.54E-01 +/- 4.48E-01	4.10E+00	8.39E-05 +/- 4.21E-05
3	60.18	6.41E+01 +/- 1.20E+00	4.10E+00	1.37E-04 +/- 4.88E-05
4	99.40	3.60E+00 +/- 6.52E-01	4.10E+00	3.30E-04 +/- 3.40E-05
5	103.90	2.69E+00 +/- 6.44E-01	4.10E+00	3.46E-04 +/- 3.13E-05
6	111.62	6.50E-01 +/- 4.22E-01	4.10E+00	3.71E-04 +/- 2.74E-05
7	116.13	8.13E-01 +/- 5.24E-01	4.10E+00	3.84E-04 +/- 2.55E-05
M 8	125.99	2.02E+00 +/- 2.22E-01	4.10E+00	4.08E-04 +/- 2.27E-05
m 9	129.99	6.36E+00 +/- 4.35E-01	4.10E+00	4.16E-04 +/- 2.21E-05
10	148.57	7.85E-01 +/- 4.07E-01	3.92E+00	4.43E-04 +/- 2.22E-05
11	162.12	5.25E-01 +/- 3.05E-01	3.75E+00	4.54E-04 +/- 2.34E-05
12	208.67	2.33E+00 +/- 3.36E-01	3.31E+00	4.56E-04 +/- 2.51E-05
13	256.05	4.36E-01 +/- 2.02E-01	2.99E+00	4.29E-04 +/- 2.23E-05
14	311.90	1.58E+00 +/- 2.63E-01	2.81E+00	3.87E-04 +/- 1.76E-05
15	321.60	6.19E-01 +/- 1.95E-01	2.79E+00	3.80E-04 +/- 1.69E-05
M 16	333.47	2.20E+00 +/- 2.41E-01	2.76E+00	3.71E-04 +/- 1.62E-05
m 17	336.36	8.64E-01 +/- 1.30E-01	2.75E+00	3.68E-04 +/- 1.60E-05
18	345.78	2.11E+00 +/- 1.97E-01	2.73E+00	3.61E-04 +/- 1.54E-05
19	375.78	4.36E+00 +/- 3.56E-01	2.66E+00	3.40E-04 +/- 1.40E-05
M 20	380.90	1.23E+00 +/- 1.58E-01	2.65E+00	3.37E-04 +/- 1.38E-05
m 21	383.45	1.13E+00 +/- 1.48E-01	2.64E+00	3.35E-04 +/- 1.37E-05
22	393.72	1.97E+00 +/- 1.69E-01	2.62E+00	3.28E-04 +/- 1.34E-05
23	413.70	6.34E+00 +/- 2.78E-01	2.58E+00	3.15E-04 +/- 1.29E-05
24	423.37	4.25E-01 +/- 1.04E-01	2.56E+00	3.09E-04 +/- 1.27E-05
25	452.29	8.11E-01 +/- 1.20E-01	2.50E+00	2.92E-04 +/- 1.22E-05
26	646.49	8.26E-02 +/- 3.61E-02	2.21E+00	2.10E-04 +/- 1.05E-05
27	662.42	4.42E-01 +/- 8.37E-02	2.19E+00	2.06E-04 +/- 1.03E-05
28	778.90	2.64E-02 +/- 2.02E-02	2.07E+00	1.76E-04 +/- 8.75E-06

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29	964.13	2.97E-02	+/-	1.98E-02	1.93E+00	1.45E-04	+/-	6.11E-06
30	1408.01	1.76E-02	+/-	1.25E-02	1.73E+00	1.09E-04	+/-	6.83E-06
31	2236.00	1.00E+02	+/-	1.51E+00	1.59E+00	9.04E-05	+/-	2.29E-05

Segment: 11 Detector: DET01 (# 1) Position: 11

Elapsed Live Time: 113.62 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.006 +/- 0.0011
SE-75	264.65	0.000 +/- 0.0000	0.021 +/- 0.0007
SE-75	279.53	0.000 +/- 0.0000	0.024 +/- 0.0011
SE-75	400.65	0.000 +/- 0.0000	0.037 +/- 0.0020

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency		
1	32.15	1.11E+00	+/- 1.86E-01	4.10E+00	1.32E-03	+/- 8.47E-03
2	50.26	2.24E+00	+/- 5.07E-01	4.10E+00	5.97E-04	+/- 1.57E-03
3	60.17	6.37E+01	+/- 1.17E+00	4.10E+00	5.03E-04	+/- 8.46E-04
4	99.39	6.54E+00	+/- 4.96E-01	4.10E+00	4.09E-04	+/- 1.03E-04
5	111.74	1.22E+00	+/- 3.74E-01	4.08E+00	4.03E-04	+/- 4.45E-05
M 6	126.08	1.68E+00	+/- 1.98E-01	3.98E+00	4.00E-04	+/- 2.38E-05
m 7	129.99	5.81E+00	+/- 4.12E-01	3.95E+00	3.99E-04	+/- 2.64E-05
8	148.57	1.20E+00	+/- 3.60E-01	3.81E+00	3.97E-04	+/- 4.23E-05
9	204.15	5.63E-01	+/- 2.20E-01	3.43E+00	3.89E-04	+/- 4.47E-05
10	208.75	1.41E+00	+/- 3.13E-01	3.40E+00	3.88E-04	+/- 4.33E-05
11	264.66	2.42E-01	+/- 1.41E-01	3.11E+00	3.71E-04	+/- 2.52E-05
12	279.54	4.65E-01	+/- 1.99E-01	3.02E+00	3.66E-04	+/- 2.15E-05
13	300.10	8.60E-01	+/- 2.07E-01	2.97E+00	3.57E-04	+/- 1.80E-05
14	311.90	1.03E+00	+/- 2.19E-01	2.93E+00	3.53E-04	+/- 1.69E-05
M 15	333.37	1.71E+00	+/- 2.14E-01	2.88E+00	3.43E-04	+/- 1.63E-05
m 16	336.39	5.64E-01	+/- 1.12E-01	2.87E+00	3.42E-04	+/- 1.63E-05
M 17	342.18	3.04E-01	+/- 8.19E-02	2.86E+00	3.40E-04	+/- 1.65E-05
m 18	345.67	1.50E+00	+/- 2.01E-01	2.85E+00	3.38E-04	+/- 1.66E-05
19	368.53	5.31E-01	+/- 1.48E-01	2.79E+00	3.28E-04	+/- 1.75E-05
20	375.74	3.11E+00	+/- 2.83E-01	2.78E+00	3.25E-04	+/- 1.79E-05
M 21	380.88	8.32E-01	+/- 1.31E-01	2.77E+00	3.23E-04	+/- 1.81E-05
m 22	383.46	7.90E-01	+/- 1.25E-01	2.76E+00	3.21E-04	+/- 1.82E-05
23	393.66	1.63E+00	+/- 1.55E-01	2.74E+00	3.17E-04	+/- 1.87E-05
24	413.70	5.01E+00	+/- 2.26E-01	2.69E+00	3.08E-04	+/- 1.94E-05
25	423.47	3.12E-01	+/- 1.02E-01	2.67E+00	3.04E-04	+/- 1.97E-05
26	452.26	5.27E-01	+/- 8.88E-02	2.61E+00	2.92E-04	+/- 2.00E-05
27	511.66	1.64E-01	+/- 5.43E-02	2.50E+00	2.67E-04	+/- 1.91E-05

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28	662.42	3.37E-01	+/-	6.56E-02	2.28E+00	2.15E-04	+/-	1.30E-05
29	722.01	1.42E-01	+/-	5.05E-02	2.21E+00	1.97E-04	+/-	1.08E-05
30	1001.03	8.68E-03	+/-	8.68E-03	1.97E+00	1.39E-04	+/-	6.19E-06
31	1112.12	3.47E-02	+/-	1.74E-02	1.90E+00	1.23E-04	+/-	5.40E-06
32	2236.00	1.00E+02	+/-	1.50E+00	1.63E+00	5.79E-05	+/-	3.30E-05

Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 114.02 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.307 +/- 0.0102
SE-75	264.65	0.000 +/- 0.0000	0.427 +/- 0.0092
SE-75	279.53	0.000 +/- 0.0000	0.439 +/- 0.0100
SE-75	400.65	0.000 +/- 0.0000	0.476 +/- 0.0120

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.87	2.16E-01	9.12E-02	2.13E+00
2	50.11	1.82E+00	4.08E-01	1.75E+00
3	60.17	3.74E+01	8.39E-01	1.68E+00
4	99.42	2.62E+00	3.78E-01	1.56E+00
M 5	125.93	9.07E-01	1.36E-01	1.53E+00
m 6	130.05	3.54E+00	3.18E-01	1.52E+00
7	208.68	8.78E-01	2.12E-01	1.42E+00
8	300.10	1.72E-01	1.15E-01	1.34E+00
M 9	333.33	3.00E-01	9.25E-02	1.33E+00
m 10	336.21	2.26E-01	7.55E-02	1.33E+00
11	345.87	2.70E-01	9.47E-02	1.32E+00
12	375.75	6.96E-01	1.49E-01	1.31E+00
M 13	380.68	1.19E-01	5.43E-02	1.31E+00
m 14	383.49	1.16E-01	5.32E-02	1.31E+00
15	393.75	3.26E-01	8.85E-02	1.31E+00
16	413.70	9.28E-01	1.05E-01	1.30E+00
17	452.37	7.86E-02	4.37E-02	1.29E+00
18	662.42	1.13E-01	4.63E-02	1.24E+00
19	722.01	8.13E-02	3.94E-02	1.22E+00
20	964.13	3.14E-02	2.21E-02	1.19E+00
21	1001.03	4.37E-02	1.95E-02	1.19E+00
22	2236.00	1.00E+02	1.50E+00	1.13E+00

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 114.18 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.178 +/- 0.0071
SE-75	264.65	0.000 +/- 0.0000	0.259 +/- 0.0057
SE-75	279.53	0.000 +/- 0.0000	0.266 +/- 0.0064
SE-75	400.65	0.000 +/- 0.0000	0.314 +/- 0.0083

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	50.06	6.47E-01 +/- 3.31E-01	2.18E+00	5.01E-06 +/- 1.34E-05
2	60.17	2.13E+01 +/- 6.01E-01	2.06E+00	2.29E-05 +/- 3.88E-05
3	99.28	2.04E+00 +/- 2.96E-01	1.87E+00	2.49E-04 +/- 6.32E-05
4	103.82	1.03E+00 +/- 2.51E-01	1.86E+00	2.80E-04 +/- 5.37E-05
M 5	111.70	9.76E-01 +/- 2.05E-01	1.84E+00	3.29E-04 +/- 3.66E-05
m 6	115.29	9.03E-01 +/- 1.86E-01	1.83E+00	3.50E-04 +/- 2.99E-05
7	129.29	2.27E+00 +/- 2.42E-01	1.81E+00	4.16E-04 +/- 2.70E-05
8	208.71	5.15E-01 +/- 1.82E-01	1.67E+00	4.87E-04 +/- 5.34E-05
9	300.10	2.82E-01 +/- 1.10E-01	1.57E+00	3.86E-04 +/- 1.92E-05
10	311.90	2.38E-01 +/- 1.11E-01	1.56E+00	3.74E-04 +/- 1.79E-05
11	333.80	1.32E-01 +/- 7.71E-02	1.55E+00	3.52E-04 +/- 1.73E-05
12	345.68	1.87E-01 +/- 7.88E-02	1.54E+00	3.41E-04 +/- 1.75E-05
13	375.79	4.22E-01 +/- 1.14E-01	1.52E+00	3.16E-04 +/- 1.85E-05
14	393.28	1.88E-01 +/- 9.00E-02	1.51E+00	3.03E-04 +/- 1.90E-05
15	400.66	1.18E-01 +/- 4.18E-02	1.50E+00	2.98E-04 +/- 1.92E-05
16	413.70	7.32E-01 +/- 9.69E-02	1.50E+00	2.89E-04 +/- 1.94E-05
17	1085.91	8.73E-03 +/- 8.73E-03	1.28E+00	1.32E-04 +/- 5.78E-06
18	2236.00	1.00E+02 +/- 1.50E+00	1.20E+00	5.36E-05 +/- 3.03E-05

Segment: 14

Detector: DET01 (# 1)

Position: 14

Elapsed Live Time: 114.22 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.107 +/- 0.0054
SE-75	264.65	0.000 +/- 0.0000	0.179 +/- 0.0040
SE-75	279.53	0.000 +/- 0.0000	0.182 +/- 0.0046
SE-75	400.65	0.000 +/- 0.0000	0.229 +/- 0.0065

PEAK ANALYSIS RESULTS						
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency		
1	60.17	1.58E+01 +/- 5.13E-01	2.44E+00	9.59E-05	+/-	1.50E-04
2	99.47	1.25E+00 +/- 2.75E-01	2.18E+00	3.19E-04	+/-	7.50E-05
3	111.78	3.76E-01 +/- 2.26E-01	2.14E+00	3.70E-04	+/-	3.91E-05
4	129.29	1.85E+00 +/- 2.08E-01	2.10E+00	4.20E-04	+/-	2.62E-05
5	208.62	3.93E-01 +/- 1.20E-01	1.90E+00	4.54E-04	+/-	4.70E-05
6	311.90	2.41E-01 +/- 8.72E-02	1.75E+00	3.71E-04	+/-	1.72E-05
7	345.69	2.42E-01 +/- 7.89E-02	1.71E+00	3.44E-04	+/-	1.65E-05
8	375.88	3.37E-01 +/- 6.61E-02	1.68E+00	3.22E-04	+/-	1.72E-05
9	393.77	2.54E-01 +/- 5.89E-02	1.67E+00	3.10E-04	+/-	1.77E-05
10	413.70	4.16E-01 +/- 7.43E-02	1.65E+00	2.98E-04	+/-	1.80E-05
11	512.00	9.51E-02 +/- 5.97E-02	1.58E+00	2.47E-04	+/-	1.68E-05
12	662.42	3.91E-02 +/- 3.01E-02	1.50E+00	1.96E-04	+/-	1.14E-05
13	1001.03	2.59E-02 +/- 1.49E-02	1.39E+00	1.37E-04	+/-	6.10E-06
14	1112.12	3.19E-02 +/- 2.29E-02	1.36E+00	1.26E-04	+/-	5.44E-06
15	2236.00	1.00E+02 +/- 1.49E+00	1.26E+00	7.64E-05	+/-	4.15E-05

Segment: 15 Detector: DET01 (# 1) Position: 15

Elapsed Live Time: 114.31 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.200 +/- 0.0076
SE-75	264.65	0.000 +/- 0.0000	0.281 +/- 0.0061
SE-75	279.53	0.000 +/- 0.0000	0.295 +/- 0.0070
SE-75	400.65	0.000 +/- 0.0000	0.339 +/- 0.0089

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.18	1.05E+01 +/-	4.04E-01	1.97E+00 1.23E-05 +/- 2.03E-05
2	99.23	4.46E-01 +/-	2.55E-01	1.80E+00 2.32E-04 +/- 5.77E-05
3	129.29	1.07E+00 +/-	1.75E-01	1.74E+00 4.21E-04 +/- 2.67E-05
4	311.90	2.98E-01 +/-	7.77E-02	1.51E+00 3.47E-04 +/- 1.64E-05
5	333.56	9.85E-02 +/-	5.64E-02	1.50E+00 3.24E-04 +/- 1.53E-05
6	346.25	1.16E-01 +/-	4.71E-02	1.49E+00 3.12E-04 +/- 1.53E-05
7	375.82	3.08E-01 +/-	9.76E-02	1.48E+00 2.88E-04 +/- 1.59E-05
8	400.66	9.16E-02 +/-	5.42E-02	1.47E+00 2.70E-04 +/- 1.63E-05
9	413.70	2.22E-01 +/-	5.81E-02	1.46E+00 2.62E-04 +/- 1.65E-05
10	722.01	3.45E-02 +/-	1.72E-02	1.34E+00 1.64E-04 +/- 9.17E-06
11	867.39	3.40E-02 +/-	2.26E-02	1.30E+00 1.44E-04 +/- 6.82E-06
12	1333.77	8.40E-02 +/-	3.29E-02	1.23E+00 9.74E-05 +/- 5.41E-06
13	2236.00	1.00E+02 +/-	1.49E+00	1.19E+00 3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01 (# 1)

Position: 16

Elapsed Live Time: 114.31 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.658 +/- 0.0173
SE-75	264.65	0.000 +/- 0.0000	0.708 +/- 0.0150
SE-75	279.53	0.000 +/- 0.0000	0.703 +/- 0.0157
SE-75	400.65	0.000 +/- 0.0000	0.741 +/- 0.0178

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.29	1.38E-01 +/-	5.51E-02	1.34E+00 4.20E-06 +/- 4.99E-06
2	60.23	4.01E+00 +/-	2.71E-01	1.22E+00 5.64E-05 +/- 2.42E-05
3	129.29	2.87E-01 +/-	1.38E-01	1.17E+00 2.27E-04 +/- 1.46E-05
4	185.71	2.13E-01 +/-	1.33E-01	1.15E+00 2.63E-04 +/- 1.76E-05
5	311.90	1.55E-01 +/-	7.02E-02	1.13E+00 2.22E-04 +/- 1.24E-05
6	400.66	7.35E-02 +/-	3.92E-02	1.12E+00 1.84E-04 +/- 9.10E-06
7	413.70	6.50E-02 +/-	3.75E-02	1.12E+00 1.79E-04 +/- 8.85E-06
8	511.80	1.49E-01 +/-	5.31E-02	1.11E+00 1.47E-04 +/- 7.94E-06

Canberra SGS Assay Report 12-19-07 5:02:32 PM Page 15
Instrument ID: SGS Can ID: LL85901335 Count Sequence #: 2512

9	662.42	4.31E-02	+/-	1.93E-02	1.09E+00	1.15E-04	+/-	7.04E-06	
10	1085.91	3.45E-02	+/-	1.72E-02	1.07E+00	7.51E-05	+/-	3.53E-06	
11	1333.86	5.90E-02	+/-	3.17E-02	1.06E+00	6.64E-05	+/-	4.06E-06	
F	12	2236.06	1.00E+02	+/-	2.04E+00	1.05E+00	6.28E-05	+/-	1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: LL85901335
Peak Locate Performed on: 12-19-07 5:00:45 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	65.04	0.2225	32.19	7.93
2	100.82	0.2039	50.08	9.33
3	121.03	0.0530	60.18	155.05
4	199.47	0.0979	99.40	40.63
5	232.01	0.1874	115.67	9.39
6	252.90	0.0935	125.97	48.31
7	260.71	0.0935	130.00	48.31
8	409.16	0.1785	204.25	13.73
9	418.05	0.1211	208.69	29.12
10	557.10	0.2572	278.22	6.45
11	625.85	0.1548	312.59	17.31
12	667.53	0.1451	333.48	18.14
13	673.97	0.2480	336.41	7.72
14	692.09	0.1384	345.71	21.52
15	738.21	0.2175	368.77	5.65
16	752.19	0.1021	375.76	36.77
17	762.11	0.1918	380.89	12.32
18	767.90	0.2021	383.45	11.17
19	787.91	0.1407	393.62	19.42
20	829.54	0.0993	414.44	35.31
21	847.40	0.2055	423.37	8.94
22	905.18	0.1772	452.26	12.34
23	1024.10	0.2154	511.71	6.60
24	1327.01	0.2113	663.20	8.01
25	4472.67	0.0266	2236.00	410.55

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: LL85901335
 Peak Analysis Performed on: 12-19-07 5:00:46 PM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area Uncert.	Continuum Counts
1	61-	71	65.04	32.19	6.66E+02	54.98		8.54E+02
2	94-	104	100.82	50.08	1.60E+03	143.81		7.62E+03
3	114-	127	121.03	60.18	4.26E+04	260.20		9.07E+03
4	194-	203	199.47	99.40	3.92E+03	149.42		8.16E+03
5	228-	238	232.01	115.67	6.72E+02	117.98		5.44E+03
M 6	246-	267	252.62	125.97	9.75E+02	51.43		2.30E+03
m 7	246-	267	260.66	130.00	4.61E+03	120.94		1.97E+03
8	405-	412	409.16	204.25	5.17E+02	59.65		1.51E+03
9	412-	425	418.05	208.69	7.74E+02	100.07		3.26E+03
10	553-	562	557.10	278.22	1.53E+02	45.05		8.29E+02
11	622-	631	625.85	312.59	5.06E+02	48.13		7.94E+02
M 12	662-	677	667.63	333.48	9.23E+02	53.97		5.62E+02
m 13	662-	677	673.48	336.41	3.62E+02	29.99		5.66E+02
14	688-	699	692.09	345.71	7.16E+02	50.52		7.23E+02
15	733-	745	738.21	368.77	3.29E+02	42.55		5.62E+02
16	745-	759	752.19	375.76	1.51E+03	74.90		1.37E+03
M 17	759-	773	762.45	380.89	4.03E+02	33.68		3.31E+02
m 18	759-	773	767.57	383.45	3.94E+02	32.43		2.92E+02
19	783-	795	787.91	393.62	7.99E+02	40.45		3.13E+02
20	821-	837	829.54	414.44	2.33E+03	58.61		3.55E+02
21	839-	852	847.40	423.37	1.33E+02	30.81		2.96E+02
22	900-	913	905.18	452.26	2.62E+02	26.97		1.68E+02
23	1016-	1032	1024.10	511.71	2.90E+02	28.26		1.62E+02
F 24	1323-	1335	1327.08	663.20	1.36E+02	20.38		3.86E+01
25	4462-	4479	4472.67	2236.00	1.84E+05	429.10		8.90E+01

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: LL85901335
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	1.000	2236.00*	100.00	8.667E+02	1.647E+02
Np-237	0.735	300.10	6.63		
		311.90*	38.60	1.702E+00	1.623E-01
Pu-239	0.962	413.70*	0.00	2.419E+05	7.511E+03
Pu-239A	0.965	129.29*	0.01	1.034E+05	3.529E+03
Am-241	0.957	662.42*	0.00	7.288E+04	1.097E+04

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-19-07 5:00:45 PM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS & Uncertainty
1	32.19	5.8123E+00	8.26
2	50.08	1.3933E+01	9.02
3	60.18	3.7184E+02	0.66
4	99.40	3.4259E+01	3.82
5	115.67	5.8710E+00	17.55
M 6	125.97	8.5177E+00	5.28
8	204.25	4.5191E+00	11.53
9	208.69	6.7589E+00	12.93
10	278.22	1.3395E+00	29.37
M 12	333.48	8.0594E+00	5.85
m 13	336.41	3.1598E+00	8.29
14	345.71	6.2567E+00	7.06
15	368.77	2.8755E+00	12.92
16	375.76	1.3192E+01	4.96
M 17	380.89	3.5191E+00	8.36
m 18	383.45	3.4367E+00	8.25
19	393.62	6.9734E+00	5.07
21	423.37	1.1579E+00	23.24
22	452.26	2.2912E+00	10.28
23	511.71	2.5341E+00	9.74

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)					
Pulser	9.60E+02	+/-	1.41E+02	1.37E-02	+/-	2.02E-03		
SE-75	<	1.03E-01	+/-	7.01E-03	<	1.47E-06	+/-	1.00E-07
EU-152x	<	2.15E-01	+/-	1.61E-02	<	3.06E-06	+/-	2.30E-07
U-233	<	4.64E+03	+/-	3.70E+02	<	6.62E-02	+/-	5.28E-03
U-235	6.78E-02	+/-	3.16E-02	9.68E-07	+/-	4.51E-07		
Np-237	2.40E+00	+/-	2.19E-01	3.42E-05	+/-	3.12E-06		
Pu-238	4.47E+03	+/-	1.97E+03	6.37E-02	+/-	2.81E-02		
U-238	3.98E+00	+/-	1.32E+00	5.67E-05	+/-	1.88E-05		
Pu-239	2.75E+05	+/-	9.90E+03	3.92E+00	+/-	1.41E-01		
Pu-239A	1.14E+05	+/-	4.23E+03	1.63E+00	+/-	6.03E-02		
Am-241	8.04E+04	+/-	9.29E+03	1.15E+00	+/-	1.33E-01		
Am-241D	4.19E+04	+/-	1.01E+04	5.97E-01	+/-	1.45E-01		
Pu-241	3.20E+05	+/-	7.87E+04	4.56E+00	+/-	1.12E+00		

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)
---------	----------

U-235	3.14E-02	+/-	1.46E-02
Np-237	3.40E-03	+/-	3.11E-04
Pu-238	2.61E-04	+/-	1.15E-04
U-238	1.19E+01	+/-	3.93E+00
Pu-239	4.43E+00	+/-	1.59E-01
Pu-239A	1.84E+00	+/-	6.81E-02
Am-241	2.35E-02	+/-	2.71E-03
Pu-241	3.09E-03	+/-	7.61E-04

Summed Spectrum				
Nuclide	Total Activity (uCi)		Concentration (uCi/g)	

Pulser	8.67E+02 +/-	1.65E+02	1.24E-02 +/-	2.35E-03
SE-75	< 4.74E-01 +/-	3.72E-03	< 6.77E-06 +/-	5.31E-08
EU-152x	< 6.66E-01 +/-	1.01E-02	< 9.50E-06 +/-	1.44E-07
U-233	< 2.73E+04 +/-	5.34E+02	< 3.90E-01 +/-	7.62E-03
U-235	< 6.48E-01 +/-	1.37E-02	< 9.25E-06 +/-	1.95E-07
Np-237	1.70E+00 +/-	1.62E-01	2.43E-05 +/-	2.32E-06
Pu-238	< 4.92E+04 +/-	8.01E+02	< 7.02E-01 +/-	1.14E-02
U-238	< 1.69E+01 +/-	2.59E-01	< 2.41E-04 +/-	3.70E-06
Pu-239	2.42E+05 +/-	7.51E+03	3.45E+00 +/-	1.07E-01
Pu-239A	1.03E+05 +/-	3.53E+03	1.48E+00 +/-	5.03E-02
Am-241	7.29E+04 +/-	1.10E+04	1.04E+00 +/-	1.56E-01
Am-241D	< 8.11E+04 +/-	6.72E+02	< 1.16E+00 +/-	9.59E-03
Pu-241	< 2.57E+05 +/-	4.19E+03	< 3.67E+00 +/-	5.98E-02

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)
---------	----------

Np-237	2.42E-03 +/-	2.30E-04
Pu-239	3.90E+00 +/-	1.21E-01
Pu-239A	1.67E+00 +/-	5.68E-02
Am-241	2.13E-02 +/-	3.20E-03

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.790 +/- 1.7203
Matrix Longitudinal Ratio: 0.969 +/- 0.4948

Source Vertical Ratio: 0.645 +/- 0.3308
Matrix Vertical Ratio: 0.979 +/- 0.0413

NUDS could not find the transmission peak in one radial segment.

Radioassay Data Sheet

Procedure ID & Rev: WCP-55 03/07/2002

Wed Dec 19 04:40:01 2007
Software Version: GWAS v2.3bGEN

Drum ID	:	LL85101542	Gross Weight (kg)	:	67.8
Sequence Number	:	2511	Fill Height (%)	:	100.0
Assay Date	:	12/17/07 11:34:57	Density (g/cc)	:	0.21
Batch Number	:		Net Weight (kg)	:	44.00
Site ID	:		Waste Matrix Code	:	
			TRUCON	:	

Errors at 1.00 Sigma					
TRU Alpha Activity Concentration:	6.95e-05	+/-	9.76e-06	Ci/g	
Total Pu-239 Equiv Activity:	2.89e+00	+/-	3.95e-01	Ci	
Total Pu-239 Fissile Gram Equiv:	1.18e+01	+/-	2.23e+00	g	
Decay Heat:	1.01e-01	+/-	1.43e-02	W	
Total Pu Mass:	1.23e+01	+/-	2.23e+00	g	
TMU:	19.53%				
Waste Classification:	TRU				

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
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Pu-238	9.87e-01	7.72e-01
Pu-239	9.29e+01	1.06e-01
Pu-240	6.00e+00	1.60e+00
Pu-241	9.91e-02	1.70e+00
Pu-242	2.52e-02	1.00e+01
Am-241	2.57e-01	1.19e+00
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	2.94e+00	8.54e+00

Activity Errors

Isotope	1.00 Sigma Mass	Alpha Activity/ Error/Isotope	1.00 Sigma Isotope	Alpha Activity/ Error/Isotope	MDA
Isotope	(g)	Mass (g)	(Ci)	(Ci)	(g)
Pu-238	1.21e-01	2.36e-02	2.07e+00	4.05e-01	1.51e-03
Pu-239	1.14e+01	2.22e+00	7.07e-01	1.38e-01	9.99e-02
Pu-240	7.36e-01	1.44e-01	1.67e-01	3.27e-02	0.00e+00
Pu-241	1.22e-02	2.38e-03	1.26e+00	2.46e-01	1.55e-03
Pu-242	3.10e-03	6.79e-04	1.22e-05	2.67e-06	0.00e+00
Am-241	3.26e-02	6.96e-03	1.12e-01	2.38e-02	4.98e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	4.23e-03	8.45e-04	2.98e-06	5.96e-07	3.66e-04
U-235	3.60e-01	7.68e-02	7.79e-07	1.66e-07	1.08e-01
*U-238	<LLD	0.00e+00	0.00e+00	0.00e+00	2.04e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	1.20e+00
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Reviewer Signature

Date

12-19-07

Date

Software Version: GWAS v2.3bGEN
Counter Number: SGS
Data Review for Container: LL85101542
Item Description Code: \Count Type: DEBRIS
Sequence Number: 2511
Assayed on: 12/17/07 11:34:57
Report Generated: 12/19/07 16:39:46
AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

Pu-240 Wt Pct <6.00> +/- 2 Sigma error <0.19>
is within limits
Pu-240 Wt Pct error <1.60> is within limits
Pu-238 Wt Pct error <0.77> is within limits

REVIEW QFIT <1.39> > <1.20> Review MGA Results

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.212> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <1.26e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <0.67> is acceptable in Segment 1
Pulser value <0.98> is within range in Segment 1
DEAD TIME percentage <0.72> is acceptable in Segment 2
Pulser value <0.99> is within range in Segment 2
DEAD TIME percentage <0.72> is acceptable in Segment 3
Pulser value <0.99> is within range in Segment 3
DEAD TIME percentage <0.84> is acceptable in Segment 4
Pulser value <0.99> is within range in Segment 4
DEAD TIME percentage <1.65> is acceptable in Segment 5
Pulser value <0.99> is within range in Segment 5
DEAD TIME percentage <2.59> is acceptable in Segment 6
Pulser value <0.99> is within range in Segment 6
DEAD TIME percentage <2.25> is acceptable in Segment 7
Pulser value <0.99> is within range in Segment 7
DEAD TIME percentage <2.19> is acceptable in Segment 8
Pulser value <0.99> is within range in Segment 8
DEAD TIME percentage <4.77> is acceptable in Segment 9
Pulser value <1.00> is within range in Segment 9
DEAD TIME percentage <5.28> is acceptable in Segment 10
Pulser value <1.01> is within range in Segment 10
DEAD TIME percentage <2.92> is acceptable in Segment 11
Pulser value <1.00> is within range in Segment 11
DEAD TIME percentage <1.21> is acceptable in Segment 12
Pulser value <0.99> is within range in Segment 12
DEAD TIME percentage <0.90> is acceptable in Segment 13
Pulser value <0.99> is within range in Segment 13
DEAD TIME percentage <0.77> is acceptable in Segment 14
Pulser value <0.98> is within range in Segment 14
DEAD TIME percentage <0.70> is acceptable in Segment 15
Pulser value <0.99> is within range in Segment 15
DEAD TIME percentage <0.64> is acceptable in Segment 16

Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
Transmission results are acceptable in Segment 2
Transmission results are acceptable in Segment 3
Transmission results are acceptable in Segment 4
Transmission results are acceptable in Segment 5
Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

All energy peaks within <3.00e+00> RCHISQ limit

Section 7 - FGE MASS REVIEW

FGE Mass <14.03> is within limits

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

Am-241 ratio <349.32> is above lower limit <200.00>
Np-237 ratio <2692.66> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <11.39> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Cs-137 Z Value <1.53> is less than limit <1.96> *OK*

Independent Reviewer: Robert J. Harkett Date: 12-19-07

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS

Data Review for Container: LL85101542

Item Description Code:

Sequence Number: 2511

Assayed on: 12/17/07 11:34:57

AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA QFIT is greater than upper limit.	OK. NQFIT OK.
SECTION 9 - IDC COUNT TYPE IDC is not available.	N/A

Technical Reviewer:

Date: 12-19-07

***** M G A R E P O R T *****

Report generated on:

12-19-07 4:34:59 PM

MGA version: MGA V9.5 CI

Spectrum ID: 11202511.CNF Sens : 30.0% LT: 54.9 Mins DT: 2.80
Measurement date: 12-17-07 Declared date: 12-17-07

Sample ID: LL85101542 Detector: Total counts: 3.009E+06

Pu g/cm² = 0.2500 Cd g/cm² = 1.8000 FWHM at 122 keV = 613 eV
QFIT = 1.39 FWHM at 208 keV = 783 eV
NQFIT = 1.03

Isotope	Relative to Pu-239	%*		Relative to Pu-241	%*		Isotope analysis at				
		Err	Err		Err	% weight	Meas. date	Decl. date	% Err	% weight	% Err
Pu-238	0.010621	0.8	0.4	9.9534	1.6	0.98653	0.77	0.98653	0.77		
Pu-239	1.000000	0.0	0.7	937.1457	1.7	92.88452	0.11	92.88452	0.11		
Pu-240	0.064646	1.7	1.5	60.5825	2.2	6.00459	1.60	6.00459	1.60		
Pu-241	0.001067	1.7	1.6	1.0000	0.0	0.09911	1.70	0.09911	1.70		
Pu-242	(New alg.)			0.2547 (10)		0.02525 (10)		0.02525 (10)			
Am-241	0.002763	1.2	0.9	2.5894	1.9	0.25665	1.19	0.25665	1.19		
U-235	0.031634	8.5	8.6			2.93829	8.54	2.93829	8.54		

Pu-240 effective (meas. date) = 8.533 +/- 1.33%
Am-241 separated about 26.882 +/- 0.361 years ago
Am/Pu-241 weight ratio = 2.58940 +/- 1.83%

Messages :

Lead x-rays detected.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Gamma Waste Assay

Sample Information

File Name: C:\WAS\DATA\2600\11102511.S11
Sample ID: LL85101542 Count Sequence Number: 2511
Assay Start: 12-17-07 11:34:58 AM
Description 1:
Description 2:
Location:
Comment:
Waste Type:
Weight: Gross: 67800.0 g Net: 44000.0 g
Density: 0.212 g /ml
Container Type: 55 Gal Galv 23.8
Container: Volume: 208000. ml Full: 100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: 55 Gal Galv 23.8
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps
Geometric Correction Factor(SWCONTGCF): 0.760
Date of efficiency calibration approval: 8-27-2003 2:05:34 PM
Mu Factors response file: Lucite response
Transmission Calib. Time: 12-10-2007 3:51:07 PM 28849

Reviewed by:

Date: 12-19-07

Segment Results

Segment: 1 Detector: DET01 (# 1) Position: 1

Elapsed Live Time: 114.23 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.177 +/- 0.0066
SE-75	264.65	0.000 +/- 0.0000	0.287 +/- 0.0062
SE-75	279.53	0.000 +/- 0.0000	0.293 +/- 0.0069
SE-75	400.65	0.000 +/- 0.0000	0.350 +/- 0.0090

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.58	2.19E+00 +/- 3.08E-01	2.19E+00	7.51E-07 +/- 2.23E-06
2	60.17	9.96E+00 +/- 4.17E-01	2.06E+00	6.34E-06 +/- 1.17E-05
3	99.31	1.26E+00 +/- 2.62E-01	1.87E+00	1.51E-04 +/- 4.18E-05
4	129.29	1.78E+00 +/- 2.13E-01	1.81E+00	3.01E-04 +/- 2.13E-05
5	208.62	4.98E-01 +/- 1.56E-01	1.64E+00	3.80E-04 +/- 4.54E-05
6	375.59	4.63E-01 +/- 8.00E-02	1.47E+00	2.25E-04 +/- 1.39E-05
7	393.68	1.24E-01 +/- 7.71E-02	1.46E+00	2.14E-04 +/- 1.43E-05
8	413.70	3.24E-01 +/- 7.12E-02	1.44E+00	2.03E-04 +/- 1.44E-05
9	722.01	9.78E-02 +/- 3.49E-02	1.33E+00	1.18E-04 +/- 7.51E-06
10	2236.00	1.00E+02 +/- 1.49E+00	1.18E+00	3.40E-05 +/- 2.15E-05

Segment: 2 Detector: DET01 (# 1) Position: 2

Elapsed Live Time: 114.17 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.116 +/- 0.0053
SE-75	264.65	0.000 +/- 0.0000	0.205 +/- 0.0045
SE-75	279.53	0.000 +/- 0.0000	0.218 +/- 0.0053
SE-75	400.65	0.000 +/- 0.0000	0.255 +/- 0.0070

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.72	2.11E+00 +/- 3.49E-01	2.55E+00	8.21E-05 +/- 2.12E-04
2	60.19	1.36E+01 +/- 4.70E-01	2.38E+00	1.33E-04 +/- 2.14E-04
3	99.29	8.76E-01 +/- 3.12E-01	2.13E+00	3.09E-04 +/- 7.54E-05
4	129.29	1.92E+00 +/- 3.35E-01	2.05E+00	3.88E-04 +/- 2.47E-05
5	204.28	3.49E-01 +/- 1.33E-01	1.85E+00	4.27E-04 +/- 4.63E-05
6	208.67	6.36E-01 +/- 1.49E-01	1.84E+00	4.25E-04 +/- 4.49E-05
7	375.82	4.83E-01 +/- 7.81E-02	1.62E+00	3.13E-04 +/- 1.76E-05
8	413.70	3.39E-01 +/- 7.92E-02	1.60E+00	2.89E-04 +/- 1.85E-05
9	1085.91	4.31E-02 +/- 1.93E-02	1.34E+00	1.20E-04 +/- 5.31E-06
10	1408.01	3.59E-02 +/- 2.73E-02	1.29E+00	1.02E-04 +/- 6.88E-06
11	2236.00	1.00E+02 +/- 1.49E+00	1.24E+00	9.73E-05 +/- 5.41E-05

Segment: 3 Detector: DET01 (# 1) Position: 3

Elapsed Live Time: 114.17 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.136 +/- 0.0061
SE-75	264.65	0.000 +/- 0.0000	0.239 +/- 0.0053
SE-75	279.53	0.000 +/- 0.0000	0.245 +/- 0.0059
SE-75	400.65	0.000 +/- 0.0000	0.290 +/- 0.0078

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.20	2.01E+00 +/- 3.30E-01	2.42E+00	3.61E-05 +/- 1.81E-05
2	60.17	9.28E+00 +/- 4.18E-01	2.25E+00	8.07E-05 +/- 2.79E-05
3	99.22	1.10E+00 +/- 3.79E-01	2.03E+00	2.96E-04 +/- 3.04E-05
4	129.29	1.74E+00 +/- 2.55E-01	1.96E+00	4.18E-04 +/- 2.23E-05
5	161.12	3.44E-01 +/- 1.80E-01	1.87E+00	4.81E-04 +/- 2.38E-05
6	204.54	2.33E-01 +/- 1.35E-01	1.76E+00	4.93E-04 +/- 2.59E-05
7	311.90	1.29E-01 +/- 8.80E-02	1.60E+00	4.04E-04 +/- 1.79E-05
8	333.66	1.60E-01 +/- 8.88E-02	1.59E+00	3.84E-04 +/- 1.63E-05
9	375.75	4.31E-01 +/- 7.79E-02	1.56E+00	3.46E-04 +/- 1.41E-05
10	393.63	1.04E-01 +/- 5.73E-02	1.55E+00	3.31E-04 +/- 1.34E-05
11	413.70	2.63E-01 +/- 6.91E-02	1.53E+00	3.16E-04 +/- 1.28E-05
12	2236.00	1.00E+02 +/- 1.49E+00	1.21E+00	1.32E-04 +/- 3.24E-05

Segment: 4

Detector: DET01 (# 1)

Position: 4

Elapsed Live Time: 114.03 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.167 +/- 0.0062
SE-75	264.65	0.000 +/- 0.0000	0.284 +/- 0.0062
SE-75	279.53	0.000 +/- 0.0000	0.293 +/- 0.0069
SE-75	400.65	0.000 +/- 0.0000	0.330 +/- 0.0086

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.86	1.83E-01 +/- 1.22E-01	2.88E+00	1.10E-07 +/- 6.76E-07
2	49.40	1.31E+00 +/- 3.93E-01	2.24E+00	9.56E-06 +/- 2.47E-05
3	60.16	1.26E+01 +/- 4.94E-01	2.10E+00	3.62E-05 +/- 5.76E-05
4	99.35	1.09E+00 +/- 4.42E-01	1.91E+00	2.64E-04 +/- 6.34E-05
M 5	126.37	3.79E-01 +/- 1.23E-01	1.85E+00	4.01E-04 +/- 2.39E-05
m 6	130.04	3.80E+00 +/- 3.54E-01	1.84E+00	4.14E-04 +/- 2.68E-05
7	204.13	3.95E-01 +/- 2.04E-01	1.66E+00	4.83E-04 +/- 5.22E-05
8	333.46	4.56E-01 +/- 1.21E-01	1.51E+00	3.57E-04 +/- 1.65E-05
9	345.76	3.77E-01 +/- 9.06E-02	1.50E+00	3.46E-04 +/- 1.65E-05

Canberra SGS Assay Report 12-19-07 4:39:19 PM Page 5
 Instrument ID: SGS Can ID: LL85101542 Count Sequence #: 2511

10	375.67	7.12E-01	+/-	1.58E-01	1.49E+00	3.21E-04	+/-	1.71E-05
M 11	380.99	1.56E-01	+/-	1.23E-01	1.49E+00	3.17E-04	+/-	1.72E-05
m 12	383.54	1.45E-01	+/-	1.05E-01	1.49E+00	3.15E-04	+/-	1.73E-05
13	393.78	1.99E-01	+/-	9.57E-02	1.48E+00	3.07E-04	+/-	1.75E-05
14	413.70	9.99E-01	+/-	1.11E-01	1.47E+00	2.94E-04	+/-	1.78E-05
15	778.90	8.66E-03	+/-	8.66E-03	1.33E+00	1.66E-04	+/-	8.40E-06
16	2236.00	1.00E+02	+/-	1.50E+00	1.19E+00	7.00E-05	+/-	3.84E-05

Segment: 5

Detector: DET01 (# 1)

Position: 5

Elapsed Live Time: 113.10 sec Elapsed Real Time: 115.00 sec

TRANSMISSION		RESULTS
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.193 +/- 0.0075
SE-75	264.65	0.000 +/- 0.0000	0.254 +/- 0.0056
SE-75	279.53	0.000 +/- 0.0000	0.263 +/- 0.0063
SE-75	400.65	0.000 +/- 0.0000	0.296 +/- 0.0079

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.74	5.46E-01	+/- 1.74E-01	2.70E+00 2.48E-07 +/- 1.66E-06
2	60.16	7.18E+01	+/- 1.33E+00	2.00E+00 4.79E-05 +/- 8.23E-05
3	99.20	1.09E+01	+/- 8.57E-01	1.82E+00 2.77E-04 +/- 7.15E-05
4	104.55	2.91E+00	+/- 6.60E-01	1.81E+00 3.06E-04 +/- 5.66E-05
5	111.72	6.79E+00	+/- 5.84E-01	1.79E+00 3.41E-04 +/- 3.82E-05
6	129.29	2.72E+01	+/- 7.31E-01	1.76E+00 4.07E-04 +/- 2.65E-05
7	144.85	1.02E+00	+/- 3.59E-01	1.74E+00 4.43E-04 +/- 4.48E-05
8	148.57	8.18E-01	+/- 3.39E-01	1.73E+00 4.48E-04 +/- 4.84E-05
9	161.67	1.06E+00	+/- 3.70E-01	1.72E+00 4.62E-04 +/- 5.67E-05
10	172.12	5.73E-01	+/- 2.44E-01	1.70E+00 4.67E-04 +/- 5.93E-05
11	190.19	5.90E-01	+/- 3.40E-01	1.68E+00 4.65E-04 +/- 5.76E-05
12	196.47	8.25E-01	+/- 3.19E-01	1.68E+00 4.63E-04 +/- 5.58E-05
13	208.67	3.19E+00	+/- 3.64E-01	1.66E+00 4.56E-04 +/- 5.12E-05
14	300.10	2.86E-01	+/- 1.73E-01	1.58E+00 3.72E-04 +/- 1.87E-05
15	324.45	3.53E-01	+/- 1.63E-01	1.57E+00 3.51E-04 +/- 1.68E-05
M 16	333.42	2.41E+00	+/- 2.57E-01	1.56E+00 3.43E-04 +/- 1.67E-05
m 17	336.66	4.36E-01	+/- 9.67E-02	1.56E+00 3.41E-04 +/- 1.67E-05
M 18	342.15	2.49E-01	+/- 7.63E-02	1.56E+00 3.36E-04 +/- 1.68E-05
m 19	345.62	2.21E+00	+/- 2.41E-01	1.56E+00 3.34E-04 +/- 1.69E-05
20	368.46	5.95E-01	+/- 1.76E-01	1.55E+00 3.16E-04 +/- 1.76E-05
21	375.72	4.60E+00	+/- 3.46E-01	1.54E+00 3.11E-04 +/- 1.79E-05
M 22	380.79	9.65E-01	+/- 1.39E-01	1.54E+00 3.07E-04 +/- 1.81E-05
m 23	383.51	8.06E-01	+/- 1.20E-01	1.54E+00 3.06E-04 +/- 1.82E-05

24	393.53	2.33E+00	+/-	1.80E-01	1.54E+00	2.99E-04	+/-	1.85E-05
25	413.70	5.39E+00	+/-	2.42E-01	1.52E+00	2.86E-04	+/-	1.90E-05
26	423.35	4.22E-01	+/-	1.07E-01	1.52E+00	2.81E-04	+/-	1.91E-05
27	452.03	8.40E-01	+/-	1.03E-01	1.50E+00	2.65E-04	+/-	1.91E-05
28	510.98	3.36E-01	+/-	9.09E-02	1.47E+00	2.38E-04	+/-	1.79E-05
29	584.09	1.62E-01	+/-	5.26E-02	1.44E+00	2.11E-04	+/-	1.52E-05
30	1001.03	4.53E-02	+/-	2.46E-02	1.31E+00	1.35E-04	+/-	6.17E-06
31	2236.00	1.00E+02	+/-	1.51E+00	1.21E+00	5.76E-05	+/-	3.29E-05

Segment: 6

Detector: DET01 (# 1)

Position: 6

Elapsed Live Time: 112.02 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS	
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.199 +/- 0.0079
SE-75	264.65	0.000 +/- 0.0000	0.278 +/- 0.0061
SE-75	279.53	0.000 +/- 0.0000	0.287 +/- 0.0068
SE-75	400.65	0.000 +/- 0.0000	0.331 +/- 0.0088

PEAK ANALYSIS RESULTS	
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency		
1	31.97	1.65E+00	+/- 2.38E-01	2.65E+00	4.58E-07	+/- 2.89E-06
2	49.88	5.96E+00	+/- 9.86E-01	2.09E+00	2.13E-05	+/- 5.53E-05
3	60.16	1.50E+02	+/- 2.30E+00	1.97E+00	6.08E-05	+/- 9.94E-05
4	95.28	2.99E+00	+/- 9.98E-01	1.81E+00	2.82E-04	+/- 8.72E-05
5	99.20	1.96E+01	+/- 1.28E+00	1.80E+00	3.05E-04	+/- 7.54E-05
6	104.47	7.84E+00	+/- 8.94E-01	1.79E+00	3.34E-04	+/- 5.96E-05
7	111.68	7.70E+00	+/- 8.62E-01	1.78E+00	3.68E-04	+/- 4.00E-05
8	116.00	2.20E+00	+/- 9.17E-01	1.77E+00	3.87E-04	+/- 3.08E-05
9	129.29	5.52E+01	+/- 1.12E+00	1.75E+00	4.31E-04	+/- 2.73E-05
10	144.72	2.42E+00	+/- 5.35E-01	1.72E+00	4.64E-04	+/- 4.49E-05
M 11	161.82	2.55E+00	+/- 3.77E-01	1.69E+00	4.81E-04	+/- 5.65E-05
m 12	165.30	1.13E+00	+/- 2.46E-01	1.69E+00	4.83E-04	+/- 5.76E-05
13	172.06	1.89E+00	+/- 4.50E-01	1.68E+00	4.85E-04	+/- 5.88E-05
14	189.80	9.23E-01	+/- 3.83E-01	1.65E+00	4.82E-04	+/- 5.72E-05
15	196.21	1.35E+00	+/- 3.29E-01	1.65E+00	4.80E-04	+/- 5.54E-05
16	204.19	4.12E+00	+/- 4.40E-01	1.64E+00	4.75E-04	+/- 5.27E-05
17	208.70	2.16E+00	+/- 6.01E-01	1.63E+00	4.72E-04	+/- 5.09E-05
18	244.70	5.74E-01	+/- 3.37E-01	1.59E+00	4.43E-04	+/- 3.54E-05
19	256.17	8.30E-01	+/- 2.64E-01	1.57E+00	4.33E-04	+/- 3.09E-05
20	285.64	3.04E-01	+/- 1.61E-01	1.54E+00	4.06E-04	+/- 2.20E-05
21	298.05	1.09E+00	+/- 3.30E-01	1.54E+00	3.94E-04	+/- 1.97E-05
M 22	333.43	5.00E+00	+/- 3.70E-01	1.51E+00	3.65E-04	+/- 1.73E-05

m 23	336.59	7.54E-01	+/-	1.27E-01	1.51E+00	3.62E-04	+/-	1.73E-05
M 24	342.19	5.21E-01	+/-	1.02E-01	1.51E+00	3.58E-04	+/-	1.74E-05
m 25	345.67	4.68E+00	+/-	3.55E-01	1.51E+00	3.55E-04	+/-	1.74E-05
26	362.75	2.32E-01	+/-	1.27E-01	1.50E+00	3.43E-04	+/-	1.79E-05
27	368.57	1.28E+00	+/-	2.49E-01	1.49E+00	3.38E-04	+/-	1.82E-05
28	375.70	8.99E+00	+/-	4.88E-01	1.49E+00	3.34E-04	+/-	1.84E-05
M 29	380.81	2.08E+00	+/-	2.06E-01	1.49E+00	3.30E-04	+/-	1.86E-05
m 30	383.42	2.01E+00	+/-	1.91E-01	1.49E+00	3.28E-04	+/-	1.87E-05
31	393.53	4.28E+00	+/-	2.47E-01	1.48E+00	3.22E-04	+/-	1.90E-05
32	413.70	1.11E+01	+/-	3.59E-01	1.47E+00	3.09E-04	+/-	1.95E-05
33	423.19	5.27E-01	+/-	1.19E-01	1.47E+00	3.04E-04	+/-	1.96E-05
34	452.17	1.29E+00	+/-	1.42E-01	1.45E+00	2.88E-04	+/-	1.97E-05
35	512.07	5.71E-01	+/-	9.60E-02	1.42E+00	2.60E-04	+/-	1.85E-05
36	662.42	1.10E-01	+/-	6.54E-02	1.36E+00	2.10E-04	+/-	1.26E-05
37	964.13	6.07E-02	+/-	2.74E-02	1.29E+00	1.51E-04	+/-	6.52E-06
38	1085.91	5.55E-02	+/-	4.35E-02	1.27E+00	1.34E-04	+/-	5.68E-06
39	1275.67	1.95E-01	+/-	4.84E-02	1.25E+00	1.12E-04	+/-	5.23E-06
40	2236.00	1.00E+02	+/-	1.51E+00	1.19E+00	4.34E-05	+/-	2.42E-05

Segment: 7

Detector: DET01 (# 1)

Position: 7

Elapsed Live Time: 112.41 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS	
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.192 +/- 0.0078
SE-75	264.65	0.000 +/- 0.0000	0.273 +/- 0.0060
SE-75	279.53	0.000 +/- 0.0000	0.282 +/- 0.0067
SE-75	400.65	0.000 +/- 0.0000	0.322 +/- 0.0086

PEAK ANALYSIS RESULTS	
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.09	1.08E+00	+/- 2.24E-01	2.68E+00 5.07E-09 +/- 2.90E-08
2	49.97	4.20E+00	+/- 7.79E-01	2.11E+00 2.83E-06 +/- 6.68E-06
3	60.16	1.23E+02	+/- 1.98E+00	2.00E+00 1.60E-05 +/- 2.39E-05
4	95.27	1.41E+00	+/- 9.30E-01	1.83E+00 2.12E-04 +/- 6.04E-05
5	99.22	1.67E+01	+/- 1.16E+00	1.82E+00 2.42E-04 +/- 5.54E-05
6	104.44	3.88E+00	+/- 8.35E-01	1.81E+00 2.82E-04 +/- 4.72E-05
7	111.70	4.71E+00	+/- 7.78E-01	1.80E+00 3.35E-04 +/- 3.48E-05
8	115.91	1.49E+00	+/- 8.15E-01	1.79E+00 3.64E-04 +/- 2.87E-05
M 9	125.95	2.03E+00	+/- 2.50E-01	1.77E+00 4.24E-04 +/- 2.46E-05
m 10	129.99	4.18E+01	+/- 1.10E+00	1.76E+00 4.45E-04 +/- 2.77E-05
11	144.84	1.53E+00	+/- 4.42E-01	1.74E+00 5.05E-04 +/- 4.48E-05
12	161.69	6.25E-01	+/- 4.23E-01	1.71E+00 5.43E-04 +/- 5.78E-05

13	172.06	7.25E-01	+/-	3.91E-01	1.69E+00	5.55E-04	+/-	6.09E-05
14	179.84	7.80E-01	+/-	3.73E-01	1.68E+00	5.58E-04	+/-	6.12E-05
15	190.14	1.06E+00	+/-	4.19E-01	1.67E+00	5.58E-04	+/-	5.97E-05
16	196.34	1.20E+00	+/-	3.82E-01	1.66E+00	5.56E-04	+/-	5.79E-05
17	204.19	1.80E+00	+/-	3.91E-01	1.65E+00	5.51E-04	+/-	5.50E-05
18	208.67	3.59E+00	+/-	5.28E-01	1.64E+00	5.47E-04	+/-	5.32E-05
19	256.05	5.33E-01	+/-	1.85E-01	1.58E+00	4.90E-04	+/-	3.18E-05
20	311.90	6.05E-01	+/-	2.07E-01	1.54E+00	4.17E-04	+/-	1.86E-05
M 21	321.58	4.51E-01	+/-	1.35E-01	1.53E+00	4.05E-04	+/-	1.79E-05
m 22	324.42	3.91E-01	+/-	1.26E-01	1.53E+00	4.02E-04	+/-	1.78E-05
M 23	333.49	3.58E+00	+/-	3.09E-01	1.53E+00	3.91E-04	+/-	1.76E-05
m 24	336.78	9.15E-01	+/-	1.32E-01	1.52E+00	3.88E-04	+/-	1.76E-05
25	345.70	2.98E+00	+/-	2.65E-01	1.52E+00	3.78E-04	+/-	1.76E-05
26	368.34	1.02E+00	+/-	2.16E-01	1.51E+00	3.55E-04	+/-	1.81E-05
27	375.70	6.25E+00	+/-	4.28E-01	1.50E+00	3.48E-04	+/-	1.82E-05
M 28	380.82	1.50E+00	+/-	1.74E-01	1.50E+00	3.44E-04	+/-	1.83E-05
m 29	383.37	1.34E+00	+/-	1.59E-01	1.50E+00	3.42E-04	+/-	1.84E-05
30	393.52	3.11E+00	+/-	2.05E-01	1.50E+00	3.33E-04	+/-	1.86E-05
31	413.70	8.16E+00	+/-	3.14E-01	1.48E+00	3.17E-04	+/-	1.88E-05
32	423.32	6.55E-01	+/-	1.17E-01	1.48E+00	3.10E-04	+/-	1.88E-05
33	452.33	9.30E-01	+/-	1.21E-01	1.46E+00	2.90E-04	+/-	1.86E-05
34	512.38	3.93E-01	+/-	9.36E-02	1.43E+00	2.57E-04	+/-	1.71E-05
35	646.48	1.04E-01	+/-	5.09E-02	1.38E+00	2.08E-04	+/-	1.23E-05
36	722.01	7.20E-02	+/-	4.38E-02	1.36E+00	1.89E-04	+/-	9.99E-06
37	1275.09	7.98E-02	+/-	4.21E-02	1.25E+00	1.17E-04	+/-	5.41E-06
38	2236.00	1.00E+02	+/-	1.51E+00	1.20E+00	5.07E-05	+/-	2.69E-05

Segment: 8

Detector: DET01 (# 1)

Position: 8

Elapsed Live Time: 112.48 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS		
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.176 +/- 0.0075
SE-75	264.65	0.000 +/- 0.0000	0.259 +/- 0.0057
SE-75	279.53	0.000 +/- 0.0000	0.268 +/- 0.0065
SE-75	400.65	0.000 +/- 0.0000	0.308 +/- 0.0083

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.10	1.89E+00	+/- 2.83E-01	2.79E+00 7.72E-06 +/- 7.49E-06
2	50.13	6.37E+00	+/- 9.14E-01	2.18E+00 5.98E-05 +/- 2.94E-05
3	60.16	1.17E+02	+/- 1.90E+00	2.06E+00 1.10E-04 +/- 3.84E-05
4	100.09	2.99E+01	+/- 1.31E+00	1.87E+00 3.28E-04 +/- 3.27E-05

5	104.09	4.37E+00	+/-	6.62E-01	1.86E+00	3.45E-04	+/-	3.07E-05
6	111.69	3.97E+00	+/-	6.54E-01	1.85E+00	3.75E-04	+/-	2.72E-05
M 7	125.98	2.44E+00	+/-	2.62E-01	1.82E+00	4.19E-04	+/-	2.31E-05
m 8	129.98	2.06E+01	+/-	7.79E-01	1.81E+00	4.29E-04	+/-	2.26E-05
9	152.68	9.33E+00	+/-	4.95E-01	1.77E+00	4.67E-04	+/-	2.32E-05
10	197.03	6.41E-01	+/-	3.59E-01	1.69E+00	4.79E-04	+/-	2.62E-05
11	208.66	4.04E+00	+/-	4.12E-01	1.68E+00	4.74E-04	+/-	2.60E-05
12	239.26	6.82E-01	+/-	2.51E-01	1.63E+00	4.54E-04	+/-	2.43E-05
13	300.10	5.99E-01	+/-	2.92E-01	1.57E+00	3.99E-04	+/-	1.88E-05
14	311.90	1.33E+00	+/-	2.27E-01	1.56E+00	3.88E-04	+/-	1.78E-05
M 15	333.44	2.67E+00	+/-	2.76E-01	1.55E+00	3.69E-04	+/-	1.62E-05
m 16	336.48	7.10E-01	+/-	1.23E-01	1.55E+00	3.66E-04	+/-	1.60E-05
17	345.68	2.12E+00	+/-	2.12E-01	1.54E+00	3.59E-04	+/-	1.54E-05
18	368.72	6.06E-01	+/-	2.28E-01	1.53E+00	3.40E-04	+/-	1.42E-05
19	375.71	4.04E+00	+/-	3.52E-01	1.53E+00	3.34E-04	+/-	1.38E-05
M 20	380.81	9.49E-01	+/-	1.45E-01	1.52E+00	3.30E-04	+/-	1.36E-05
m 21	383.53	9.21E-01	+/-	1.40E-01	1.52E+00	3.28E-04	+/-	1.35E-05
22	393.57	1.94E+00	+/-	2.11E-01	1.52E+00	3.21E-04	+/-	1.31E-05
23	400.66	2.19E-01	+/-	1.52E-01	1.51E+00	3.16E-04	+/-	1.29E-05
24	413.70	5.28E+00	+/-	2.60E-01	1.51E+00	3.06E-04	+/-	1.25E-05
25	423.35	3.54E-01	+/-	9.98E-02	1.50E+00	3.00E-04	+/-	1.22E-05
26	451.95	7.28E-01	+/-	1.17E-01	1.48E+00	2.82E-04	+/-	1.16E-05
27	511.39	6.01E-01	+/-	1.32E-01	1.45E+00	2.50E-04	+/-	1.09E-05
28	583.64	1.83E-01	+/-	7.53E-02	1.42E+00	2.19E-04	+/-	1.02E-05
29	662.42	1.14E-01	+/-	6.19E-02	1.39E+00	1.93E-04	+/-	9.41E-06
30	767.10	1.13E-01	+/-	5.58E-02	1.36E+00	1.68E-04	+/-	8.15E-06
31	778.90	1.49E-01	+/-	6.14E-02	1.35E+00	1.66E-04	+/-	8.00E-06
32	867.39	5.08E-02	+/-	3.35E-02	1.33E+00	1.51E-04	+/-	6.88E-06
33	2236.00	1.00E+02	+/-	1.51E+00	1.20E+00	1.19E-04	+/-	2.92E-05
34	2617.12	2.07E-01	+/-	4.64E-02	1.20E+00	1.33E-04	+/-	4.61E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 109.51 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION		RESULTS	
	Energy	Container Transmission	Sample	Transmission
SE-75	136.00	0.000 +/- 0.0000	0.206	+/- 0.0087
SE-75	264.65	0.000 +/- 0.0000	0.299	+/- 0.0066
SE-75	279.53	0.000 +/- 0.0000	0.308	+/- 0.0073
SE-75	400.65	0.000 +/- 0.0000	0.350	+/- 0.0093

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.88	1.91E+00 +/-	2.94E-01	2.61E+00 5.65E-09 +/- 3.43E-08
2	50.05	1.19E+01 +/-	1.21E+00	2.06E+00 3.08E-06 +/- 7.61E-06
3	60.16	3.24E+02 +/-	4.40E+00	1.95E+00 1.65E-05 +/- 2.58E-05
4	75.52	1.75E+00 +/-	6.59E-01	1.86E+00 7.45E-05 +/- 5.86E-05
5	100.41	1.64E+02 +/-	2.89E+00	1.78E+00 2.43E-04 +/- 5.42E-05
6	111.65	1.04E+01 +/-	9.35E-01	1.76E+00 3.22E-04 +/- 3.47E-05
M 7	125.96	7.10E+00 +/-	4.13E-01	1.73E+00 4.05E-04 +/- 2.41E-05
m 8	129.97	4.84E+01 +/-	1.26E+00	1.73E+00 4.24E-04 +/- 2.72E-05
9	152.68	6.39E+01 +/-	1.21E+00	1.69E+00 4.97E-04 +/- 5.14E-05
10	171.94	1.12E+00 +/-	6.08E-01	1.65E+00 5.22E-04 +/- 5.97E-05
11	196.31	1.98E+00 +/-	4.67E-01	1.62E+00 5.20E-04 +/- 5.63E-05
12	204.21	1.28E+00 +/-	6.84E-01	1.61E+00 5.14E-04 +/- 5.34E-05
13	208.67	9.54E+00 +/-	7.54E-01	1.60E+00 5.11E-04 +/- 5.15E-05
14	239.32	3.99E+00 +/-	4.95E-01	1.56E+00 4.76E-04 +/- 3.73E-05
15	256.12	6.63E-01 +/-	2.94E-01	1.54E+00 4.54E-04 +/- 3.03E-05
16	268.04	1.17E+00 +/-	4.73E-01	1.53E+00 4.38E-04 +/- 2.61E-05
M 17	298.16	5.27E-01 +/-	1.51E-01	1.50E+00 3.99E-04 +/- 1.92E-05
m 18	300.60	8.08E-01 +/-	1.94E-01	1.50E+00 3.96E-04 +/- 1.89E-05
19	311.90	3.16E+00 +/-	3.26E-01	1.50E+00 3.83E-04 +/- 1.78E-05
M 20	333.46	7.21E+00 +/-	4.43E-01	1.48E+00 3.59E-04 +/- 1.71E-05
m 21	336.41	2.58E+00 +/-	2.21E-01	1.48E+00 3.56E-04 +/- 1.71E-05
22	345.69	5.48E+00 +/-	3.26E-01	1.48E+00 3.46E-04 +/- 1.72E-05
23	375.69	1.28E+01 +/-	5.96E-01	1.46E+00 3.18E-04 +/- 1.78E-05
M 24	380.81	2.41E+00 +/-	2.42E-01	1.46E+00 3.14E-04 +/- 1.79E-05
m 25	383.41	2.77E+00 +/-	2.61E-01	1.46E+00 3.12E-04 +/- 1.80E-05
26	393.58	6.21E+00 +/-	3.43E-01	1.45E+00 3.03E-04 +/- 1.81E-05
27	413.70	1.60E+01 +/-	4.72E-01	1.44E+00 2.88E-04 +/- 1.83E-05
28	423.18	8.46E-01 +/-	1.70E-01	1.44E+00 2.82E-04 +/- 1.83E-05
29	452.17	1.75E+00 +/-	1.77E-01	1.43E+00 2.63E-04 +/- 1.81E-05
30	511.58	3.20E+00 +/-	2.27E-01	1.40E+00 2.33E-04 +/- 1.66E-05
31	583.95	2.01E+00 +/-	1.60E-01	1.37E+00 2.06E-04 +/- 1.39E-05
32	619.15	1.69E-01 +/-	8.75E-02	1.36E+00 1.95E-04 +/- 1.26E-05
33	662.42	7.47E-01 +/-	1.28E-01	1.34E+00 1.84E-04 +/- 1.12E-05
34	722.01	3.19E-01 +/-	7.97E-02	1.33E+00 1.72E-04 +/- 9.44E-06
35	727.94	2.62E-01 +/-	8.00E-02	1.33E+00 1.70E-04 +/- 9.30E-06
36	743.59	1.94E-01 +/-	6.77E-02	1.32E+00 1.68E-04 +/- 8.93E-06
37	767.01	1.18E+00 +/-	1.23E-01	1.32E+00 1.64E-04 +/- 8.44E-06
38	786.97	1.57E-01 +/-	6.10E-02	1.31E+00 1.60E-04 +/- 8.07E-06
39	861.32	1.83E-01 +/-	6.67E-02	1.29E+00 1.50E-04 +/- 7.06E-06
40	1275.77	9.14E-01 +/-	1.00E-01	1.23E+00 1.13E-04 +/- 5.18E-06
41	1593.82	1.54E-01 +/-	5.27E-02	1.21E+00 9.41E-05 +/- 1.20E-05
42	2236.00	1.00E+02 +/-	1.53E+00	1.18E+00 6.12E-05 +/- 3.31E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	2616.63	9.15E-01 +/- 9.22E-02	1.17E+00	4.51E-05 +/- 4.04E-05

Segment: 10

Detector: DET01 (# 1)

Position: 10

Elapsed Live Time: 108.93 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.219 +/- 0.0086
SE-75	264.65	0.000 +/- 0.0000	0.328 +/- 0.0072
SE-75	279.53	0.000 +/- 0.0000	0.336 +/- 0.0080
SE-75	400.65	0.000 +/- 0.0000	0.388 +/- 0.0102

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.11	4.56E+00 +/- 4.48E-01	2.52E+00	1.68E-05 +/- 1.66E-05
2	49.95	1.95E+01 +/- 1.50E+00	2.01E+00	8.37E-05 +/- 4.21E-05
3	60.16	3.60E+02 +/- 4.86E+00	1.90E+00	1.37E-04 +/- 4.88E-05
M 4	73.37	2.39E+00 +/- 5.23E-01	1.83E+00	2.09E-04 +/- 4.85E-05
m 5	75.68	3.20E+00 +/- 5.96E-01	1.82E+00	2.22E-04 +/- 4.77E-05
6	85.47	1.65E+00 +/- 1.19E+00	1.78E+00	2.70E-04 +/- 4.27E-05
7	100.42	2.08E+02 +/- 3.32E+00	1.74E+00	3.34E-04 +/- 3.34E-05
8	111.68	1.16E+01 +/- 9.85E-01	1.72E+00	3.72E-04 +/- 2.73E-05
M 9	125.95	8.16E+00 +/- 4.43E-01	1.70E+00	4.08E-04 +/- 2.27E-05
m 10	129.96	5.65E+01 +/- 1.39E+00	1.69E+00	4.16E-04 +/- 2.21E-05
11	152.68	7.36E+01 +/- 1.41E+00	1.65E+00	4.47E-04 +/- 2.25E-05
12	161.55	1.24E+00 +/- 6.04E-01	1.63E+00	4.54E-04 +/- 2.33E-05
13	171.97	2.67E+00 +/- 6.54E-01	1.62E+00	4.59E-04 +/- 2.42E-05
14	179.87	8.76E-01 +/- 5.67E-01	1.60E+00	4.60E-04 +/- 2.48E-05
15	196.30	8.90E-01 +/- 6.31E-01	1.58E+00	4.59E-04 +/- 2.52E-05
16	208.67	1.07E+01 +/- 7.61E-01	1.56E+00	4.56E-04 +/- 2.51E-05
17	239.20	4.57E+00 +/- 4.83E-01	1.51E+00	4.40E-04 +/- 2.36E-05
18	255.99	9.03E-01 +/- 3.03E-01	1.49E+00	4.29E-04 +/- 2.23E-05
19	268.26	1.05E+00 +/- 4.79E-01	1.48E+00	4.20E-04 +/- 2.12E-05
20	279.54	4.85E-01 +/- 3.20E-01	1.47E+00	4.12E-04 +/- 2.03E-05
M 21	298.15	8.56E-01 +/- 1.89E-01	1.46E+00	3.97E-04 +/- 1.87E-05
m 22	300.85	1.27E+00 +/- 2.35E-01	1.46E+00	3.95E-04 +/- 1.85E-05
23	311.90	3.65E+00 +/- 3.48E-01	1.45E+00	3.87E-04 +/- 1.76E-05
M 24	333.40	8.21E+00 +/- 4.74E-01	1.44E+00	3.71E-04 +/- 1.62E-05

m 25	336.36	2.59E+00	+/-	2.24E-01	1.44E+00	3.68E-04	+/-	1.60E-05
26	345.65	4.76E+00	+/-	6.30E-01	1.43E+00	3.62E-04	+/-	1.54E-05
27	368.77	2.80E+00	+/-	3.62E-01	1.42E+00	3.45E-04	+/-	1.43E-05
28	375.68	1.31E+01	+/-	6.56E-01	1.42E+00	3.40E-04	+/-	1.40E-05
M 29	380.86	3.14E+00	+/-	2.85E-01	1.41E+00	3.37E-04	+/-	1.38E-05
m 30	383.43	2.84E+00	+/-	2.61E-01	1.41E+00	3.35E-04	+/-	1.37E-05
31	393.56	6.27E+00	+/-	3.45E-01	1.41E+00	3.28E-04	+/-	1.34E-05
32	413.70	1.76E+01	+/-	4.94E-01	1.40E+00	3.15E-04	+/-	1.29E-05
33	443.98	2.94E-01	+/-	1.73E-01	1.38E+00	2.97E-04	+/-	1.23E-05
34	452.20	1.79E+00	+/-	2.28E-01	1.38E+00	2.92E-04	+/-	1.22E-05
35	511.53	3.41E+00	+/-	2.29E-01	1.36E+00	2.62E-04	+/-	1.16E-05
36	583.83	2.42E+00	+/-	2.01E-01	1.33E+00	2.32E-04	+/-	1.11E-05
37	662.42	1.10E+00	+/-	1.36E-01	1.31E+00	2.06E-04	+/-	1.03E-05
38	705.26	1.23E-01	+/-	5.68E-02	1.30E+00	1.94E-04	+/-	9.77E-06
39	722.01	3.12E-01	+/-	8.35E-02	1.29E+00	1.89E-04	+/-	9.55E-06
40	743.79	3.27E-01	+/-	1.18E-01	1.29E+00	1.84E-04	+/-	9.25E-06
41	767.09	1.33E+00	+/-	1.37E-01	1.28E+00	1.79E-04	+/-	8.92E-06
42	787.01	1.91E-01	+/-	6.33E-02	1.28E+00	1.75E-04	+/-	8.64E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	861.49	1.12E-01 +/- 6.24E-02	1.26E+00	1.61E-04 +/- 7.54E-06
44	1001.03	1.70E-01 +/- 6.85E-02	1.24E+00	1.41E-04 +/- 5.67E-06
45	1275.55	9.86E-01 +/- 1.14E-01	1.21E+00	1.16E-04 +/- 5.23E-06
46	2105.21	1.34E-01 +/- 7.10E-02	1.16E+00	9.13E-05 +/- 2.00E-05
47	2236.00	1.00E+02 +/- 1.54E+00	1.16E+00	9.04E-05 +/- 2.29E-05
48	2616.82	9.70E-01 +/- 9.53E-02	1.16E+00	9.05E-05 +/- 3.22E-05

Segment: 11

Detector: DET01 (# 1)

Position: 11

Elapsed Live Time: 111.64 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.369 +/- 0.0119
SE-75	264.65	0.000 +/- 0.0000	0.471 +/- 0.0102
SE-75	279.53	0.000 +/- 0.0000	0.473 +/- 0.0108
SE-75	400.65	0.000 +/- 0.0000	0.532 +/- 0.0133

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.93	2.78E+00 +/- 2.93E-01	1.92E+00	1.34E-03 +/- 8.73E-03
2	50.22	1.01E+01 +/- 1.08E+00	1.62E+00	5.97E-04 +/- 1.57E-03
3	60.16	1.75E+02 +/- 2.60E+00	1.56E+00	5.03E-04 +/- 8.47E-04
M 4	73.29	8.26E-01 +/- 3.30E-01	1.51E+00	4.47E-04 +/- 4.18E-04
m 5	76.02	7.62E-01 +/- 3.28E-01	1.50E+00	4.40E-04 +/- 3.63E-04
6	100.42	1.06E+02 +/- 2.08E+00	1.46E+00	4.08E-04 +/- 9.66E-05
7	104.06	8.44E+00 +/- 6.76E-01	1.46E+00	4.06E-04 +/- 7.65E-05
8	111.72	4.34E+00 +/- 7.77E-01	1.45E+00	4.03E-04 +/- 4.46E-05
9	115.66	2.29E+00 +/- 7.46E-01	1.44E+00	4.02E-04 +/- 3.34E-05
M 10	126.03	3.43E+00 +/- 2.97E-01	1.43E+00	4.00E-04 +/- 2.38E-05
m 11	129.99	2.60E+01 +/- 8.80E-01	1.43E+00	3.99E-04 +/- 2.64E-05
12	144.81	1.82E+00 +/- 5.74E-01	1.42E+00	3.98E-04 +/- 3.97E-05
13	152.68	3.16E+01 +/- 7.75E-01	1.41E+00	3.97E-04 +/- 4.46E-05
M 14	161.74	1.67E+00 +/- 3.44E-01	1.40E+00	3.96E-04 +/- 4.80E-05
m 15	165.23	1.41E+00 +/- 3.13E-01	1.39E+00	3.95E-04 +/- 4.88E-05
16	172.25	1.77E+00 +/- 4.89E-01	1.39E+00	3.95E-04 +/- 4.96E-05
17	196.32	1.15E+00 +/- 4.59E-01	1.37E+00	3.91E-04 +/- 4.68E-05
18	208.70	7.56E+00 +/- 4.70E-01	1.36E+00	3.88E-04 +/- 4.34E-05
19	239.21	2.43E+00 +/- 3.31E-01	1.33E+00	3.80E-04 +/- 3.32E-05

20	256.17	5.19E-01	+/-	2.38E-01	1.32E+00	3.74E-04	+/-	2.77E-05
21	300.10	3.47E-01	+/-	2.32E-01	1.30E+00	3.57E-04	+/-	1.80E-05
22	311.90	1.84E+00	+/-	2.48E-01	1.30E+00	3.53E-04	+/-	1.69E-05
M 23	333.44	2.90E+00	+/-	2.94E-01	1.29E+00	3.43E-04	+/-	1.63E-05
m 24	336.36	1.08E+00	+/-	1.59E-01	1.28E+00	3.42E-04	+/-	1.63E-05
M 25	341.97	3.63E-01	+/-	1.02E-01	1.28E+00	3.40E-04	+/-	1.64E-05
m 26	345.68	2.91E+00	+/-	3.00E-01	1.28E+00	3.38E-04	+/-	1.66E-05
27	368.79	1.22E+00	+/-	2.28E-01	1.27E+00	3.28E-04	+/-	1.75E-05
28	375.68	6.56E+00	+/-	4.23E-01	1.27E+00	3.25E-04	+/-	1.79E-05
M 29	380.81	1.28E+00	+/-	1.75E-01	1.27E+00	3.23E-04	+/-	1.81E-05
m 30	383.51	1.28E+00	+/-	1.70E-01	1.27E+00	3.21E-04	+/-	1.83E-05
31	393.54	2.77E+00	+/-	2.33E-01	1.26E+00	3.17E-04	+/-	1.87E-05
32	413.70	7.69E+00	+/-	3.23E-01	1.26E+00	3.08E-04	+/-	1.94E-05
33	423.34	3.63E-01	+/-	1.26E-01	1.25E+00	3.04E-04	+/-	1.97E-05
34	443.98	1.95E-01	+/-	1.34E-01	1.25E+00	2.95E-04	+/-	2.00E-05
35	452.14	7.29E-01	+/-	1.19E-01	1.24E+00	2.92E-04	+/-	2.00E-05
36	511.32	1.75E+00	+/-	1.77E-01	1.23E+00	2.67E-04	+/-	1.91E-05
37	583.90	1.40E+00	+/-	1.34E-01	1.21E+00	2.40E-04	+/-	1.64E-05
38	662.42	4.55E-01	+/-	8.23E-02	1.20E+00	2.15E-04	+/-	1.30E-05
39	728.18	1.54E-01	+/-	7.07E-02	1.19E+00	1.96E-04	+/-	1.06E-05
40	767.08	5.77E-01	+/-	9.73E-02	1.18E+00	1.86E-04	+/-	9.42E-06
41	964.13	9.92E-02	+/-	5.72E-02	1.16E+00	1.45E-04	+/-	6.48E-06
42	1275.65	5.49E-01	+/-	7.98E-02	1.14E+00	1.05E-04	+/-	5.03E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	1408.01	2.40E-02 +/- 2.22E-02	1.13E+00	9.35E-05 +/- 6.52E-06
44	2236.00	1.00E+02 +/- 1.52E+00	1.11E+00	5.79E-05 +/- 3.30E-05
45	2616.73	4.74E-01 +/- 6.53E-02	1.10E+00	5.15E-05 +/- 4.85E-05

Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 113.61 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.429 +/- 0.0123
SE-75	264.65	0.000 +/- 0.0000	0.517 +/- 0.0110
SE-75	279.53	0.000 +/- 0.0000	0.516 +/- 0.0116
SE-75	400.65	0.000 +/- 0.0000	0.562 +/- 0.0137

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.18	9.20E-01 +/- 1.77E-01	1.75E+00	2.59E-09 +/- 1.58E-08
2	50.11	1.53E+00 +/- 5.35E-01	1.51E+00	2.12E-06 +/- 5.34E-06
3	60.16	4.23E+01 +/- 9.87E-01	1.46E+00	1.30E-05 +/- 2.08E-05
4	67.80	7.47E-01 +/- 2.96E-01	1.44E+00	3.32E-05 +/- 3.78E-05
5	99.94	7.46E+00 +/- 7.84E-01	1.39E+00	2.37E-04 +/- 5.52E-05
6	103.94	1.41E+00 +/- 4.04E-01	1.38E+00	2.68E-04 +/- 4.89E-05
M 7	125.87	4.64E-01 +/- 1.63E-01	1.36E+00	4.16E-04 +/- 2.45E-05
m 8	129.90	3.79E+00 +/- 3.83E-01	1.36E+00	4.37E-04 +/- 2.81E-05
9	152.68	1.54E+00 +/- 2.84E-01	1.34E+00	5.19E-04 +/- 5.50E-05
10	208.84	1.20E+00 +/- 2.20E-01	1.30E+00	5.31E-04 +/- 5.52E-05
11	239.18	6.66E-01 +/- 1.75E-01	1.29E+00	4.91E-04 +/- 3.98E-05
12	292.18	1.72E-01 +/- 8.74E-02	1.27E+00	4.14E-04 +/- 2.08E-05
13	300.10	2.15E-01 +/- 1.06E-01	1.27E+00	4.04E-04 +/- 1.94E-05
14	333.60	6.98E-01 +/- 1.82E-01	1.25E+00	3.62E-04 +/- 1.72E-05
15	375.80	7.85E-01 +/- 1.24E-01	1.24E+00	3.19E-04 +/- 1.79E-05
16	383.27	1.32E-01 +/- 8.22E-02	1.24E+00	3.12E-04 +/- 1.80E-05
17	393.57	4.54E-01 +/- 1.10E-01	1.24E+00	3.03E-04 +/- 1.82E-05
18	413.70	7.46E-01 +/- 1.08E-01	1.23E+00	2.87E-04 +/- 1.84E-05
19	584.18	3.81E-01 +/- 7.58E-02	1.19E+00	2.03E-04 +/- 1.41E-05
20	778.90	3.21E-02 +/- 2.44E-02	1.16E+00	1.60E-04 +/- 8.31E-06
21	2236.00	1.00E+02 +/- 1.50E+00	1.10E+00	6.48E-05 +/- 3.54E-05

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 113.97 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION		RESULTS
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.300 +/- 0.0094
SE-75	264.65	0.000 +/- 0.0000	0.405 +/- 0.0087
SE-75	279.53	0.000 +/- 0.0000	0.410 +/- 0.0094
SE-75	400.65	0.000 +/- 0.0000	0.463 +/- 0.0116

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.04	4.01E-01 +/- 1.38E-01	2.15E+00	1.73E-08 +/- 1.13E-07
2	60.15	1.44E+01 +/- 5.60E-01	1.69E+00	2.29E-05 +/- 3.87E-05
3	129.29	7.35E-01 +/- 2.69E-01	1.53E+00	4.16E-04 +/- 2.70E-05
M 4	185.71	6.28E-01 +/- 1.77E-01	1.46E+00	5.01E-04 +/- 6.14E-05
M 5	239.16	6.93E-01 +/- 1.47E-01	1.41E+00	4.56E-04 +/- 3.87E-05
m 6	241.97	2.29E-01 +/- 7.61E-02	1.40E+00	4.53E-04 +/- 3.74E-05
7	300.10	1.97E-01 +/- 1.38E-01	1.37E+00	3.86E-04 +/- 1.92E-05
8	413.70	1.24E-01 +/- 8.06E-02	1.32E+00	2.89E-04 +/- 1.94E-05
9	583.57	2.28E-01 +/- 5.87E-02	1.26E+00	2.13E-04 +/- 1.53E-05
10	2236.00	1.00E+02 +/- 1.50E+00	1.13E+00	5.36E-05 +/- 3.03E-05

Segment: 14

Detector: DET01 (# 1)

Position: 14

Elapsed Live Time: 114.11 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION		RESULTS
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.263 +/- 0.0087
SE-75	264.65	0.000 +/- 0.0000	0.373 +/- 0.0080
SE-75	279.53	0.000 +/- 0.0000	0.379 +/- 0.0087
SE-75	400.65	0.000 +/- 0.0000	0.434 +/- 0.0109

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.75	8.18E-01 +/- 3.04E-01	1.87E+00	4.51E-05 +/- 1.13E-04
2	60.17	9.22E+00 +/- 4.55E-01	1.78E+00	9.59E-05 +/- 1.50E-04
3	239.26	4.96E-01 +/- 1.14E-01	1.45E+00	4.33E-04 +/- 3.51E-05
4	583.95	2.94E-01 +/- 5.74E-02	1.29E+00	2.19E-04 +/- 1.43E-05
5	722.01	3.06E-02 +/- 2.37E-02	1.26E+00	1.81E-04 +/- 9.66E-06
6	1408.01	8.63E-03 +/- 8.63E-03	1.17E+00	1.05E-04 +/- 7.02E-06
7	2236.00	1.00E+02 +/- 1.49E+00	1.14E+00	7.64E-05 +/- 4.15E-05
8	2616.47	1.04E-01 +/- 2.99E-02	1.14E+00	6.87E-05 +/- 6.16E-05

Segment: 15

Detector: DET01 (# 1)

Position: 15

Elapsed Live Time: 114.19 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.294 +/- 0.0093
SE-75	264.65	0.000 +/- 0.0000	0.408 +/- 0.0088
SE-75	279.53	0.000 +/- 0.0000	0.418 +/- 0.0095
SE-75	400.65	0.000 +/- 0.0000	0.473 +/- 0.0118

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.15	5.39E+00 +/- 3.68E-01	1.70E+00	1.23E-05 +/- 2.02E-05
2	239.21	3.03E-01 +/- 1.13E-01	1.40E+00	4.40E-04 +/- 3.74E-05
3	511.44	2.09E-01 +/- 6.80E-02	1.28E+00	2.15E-04 +/- 1.54E-05
4	583.69	1.47E-01 +/- 5.44E-02	1.26E+00	1.93E-04 +/- 1.32E-05
5	867.39	4.32E-02 +/- 1.93E-02	1.20E+00	1.44E-04 +/- 6.82E-06
6	1085.91	2.59E-02 +/- 1.50E-02	1.18E+00	1.21E-04 +/- 5.37E-06
7	1333.60	5.18E-02 +/- 2.80E-02	1.16E+00	9.74E-05 +/- 5.41E-06
8	2236.00	1.00E+02 +/- 1.49E+00	1.13E+00	3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01 (# 1)

Position: 16

Elapsed Live Time: 114.26 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.555 +/- 0.0158
SE-75	264.65	0.000 +/- 0.0000	0.640 +/- 0.0136
SE-75	279.53	0.000 +/- 0.0000	0.652 +/- 0.0145
SE-75	400.65	0.000 +/- 0.0000	0.683 +/- 0.0165

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.65	2.12E-01 +/- 7.37E-02	1.51E+00	3.76E-06 +/- 4.59E-06
2	60.21	2.49E+00 +/- 2.75E-01	1.31E+00	5.63E-05 +/- 2.42E-05
3	400.66	9.49E-02 +/- 5.54E-02	1.15E+00	1.84E-04 +/- 9.10E-06
4	584.03	8.33E-02 +/- 5.70E-02	1.13E+00	1.30E-04 +/- 7.56E-06
5	778.90	2.59E-02 +/- 1.49E-02	1.11E+00	9.86E-05 +/- 6.05E-06
6	1408.01	2.37E-02 +/- 2.30E-02	1.08E+00	6.48E-05 +/- 4.76E-06
7	2236.00	1.00E+02 +/- 1.49E+00	1.06E+00	6.28E-05 +/- 1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: LL85101542
Peak Locate Performed on: 12-19-07 4:38:26 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.57	0.1574	31.95	18.26
2	100.57	0.1553	49.95	13.55
3	120.99	0.0382	60.16	298.53
4	151.88	0.3389	75.61	5.13
5	201.20	0.0535	100.26	121.28
6	208.95	0.0946	104.14	45.30
7	224.04	0.0910	111.69	51.32
8	232.28	0.1134	115.81	19.75
9	260.67	0.0558	129.98	133.60
10	290.18	0.1791	144.75	15.48
11	307.45	0.0618	153.39	103.10
12	324.01	0.1895	161.67	8.95
13	344.86	0.2026	172.10	11.27
14	360.41	0.2504	179.87	7.08
15	393.37	0.1963	196.35	10.84
16	409.08	0.0978	204.20	44.81
17	418.03	0.0786	208.68	68.15
18	479.17	0.1348	239.25	22.82
19	512.80	0.1830	256.07	12.56
20	596.70	0.2847	298.14	6.09
21	602.25	0.2541	300.74	7.27
22	625.77	0.1277	312.55	24.04
23	667.50	0.0960	333.45	40.45
24	674.06	0.1760	336.47	15.86
25	692.01	0.0971	345.67	43.53
26	738.19	0.1505	368.76	12.19
27	752.06	0.0727	375.69	75.36
28	762.03	0.1336	380.83	25.22
29	767.82	0.1450	383.43	22.04
30	787.77	0.0970	393.55	39.72
31	829.44	0.0723	414.39	66.97
32	847.22	0.1511	423.28	16.99
33	904.93	0.1311	452.13	22.89
34	1023.77	0.1490	511.55	12.89
35	1118.84	0.2774	559.09	5.08
36	1168.43	0.1305	583.88	19.97

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	1326.71	0.1724	663.02	11.64
38	1445.78	0.2163	722.56	7.74
39	1487.97	0.2559	743.65	5.70
40	1534.73	0.1596	767.03	13.86
41	2551.93	0.1601	1275.63	12.34
42	2667.60	0.2560	1333.46	5.00
43	4472.65	0.0267	2235.99	408.42
44	5234.25	0.1516	2616.79	10.57

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: LL85101542
 Peak Analysis Performed on: 12-19-07 4:38:26 PM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area Uncert.	Continuum Counts
1	61-	70	64.57	31.95	2.29E+03	99.84		2.89E+03
2	94-	105	100.57	49.95	6.99E+03	309.44		3.36E+04
3	114-	127	120.99	60.16	1.60E+05	508.17		3.56E+04
4	145-	158	151.88	75.61	1.76E+03	234.88		1.90E+04
5	194-	207	201.20	100.26	5.64E+04	515.64		7.61E+04
6	207-	215	208.95	104.14	5.54E+03	271.69		2.51E+04
7	217-	228	224.04	111.69	4.03E+03	272.82		2.72E+04
8	228-	239	232.28	115.81	1.95E+03	278.28		2.83E+04
F	9	257-	267	260.63	129.98	3.27E+04	313.68	8.38E+03
10		283-	293	290.18	144.75	9.97E+02	175.80	1.25E+04
11		303-	314	307.45	153.39	1.85E+04	222.19	1.22E+04
12		316-	328	324.01	161.67	3.93E+02	168.07	1.05E+04
13		338-	351	344.86	172.10	1.07E+03	162.45	9.18E+03
14		356-	367	360.41	179.87	5.70E+02	138.71	7.44E+03
15		390-	400	393.37	196.35	1.13E+03	124.85	6.05E+03
16		401-	413	409.08	204.20	7.56E+02	170.51	1.06E+04
17		413-	425	418.03	208.68	4.14E+03	183.86	1.04E+04
18		471-	484	479.17	239.25	1.59E+03	122.89	4.91E+03
19		509-	518	512.80	256.07	4.83E+02	82.97	2.82E+03
M	20	591-	609	596.95	298.14	3.26E+02	47.84	1.85E+03
m	21	591-	609	602.16	300.74	3.95E+02	53.16	1.60E+03
	22	622-	631	625.77	312.55	1.28E+03	75.68	1.94E+03
M	23	659-	678	667.56	333.45	3.81E+03	104.40	1.49E+03
m	24	659-	678	673.61	336.47	1.15E+03	49.81	1.47E+03
25		678-	699	692.01	345.67	1.84E+03	150.49	5.31E+03
26		730-	745	738.19	368.76	1.11E+03	87.33	2.17E+03
27		745-	759	752.06	375.69	6.54E+03	143.59	4.63E+03
M	28	759-	775	762.33	380.83	1.43E+03	60.35	9.55E+02
m	29	759-	775	767.52	383.43	1.38E+03	58.02	9.26E+02
30		780-	795	787.77	393.55	3.14E+03	82.93	1.24E+03
31		821-	837	829.44	414.39	8.24E+03	105.59	9.30E+02
32		843-	851	847.22	423.28	4.57E+02	39.76	5.22E+02
33		900-	912	904.93	452.13	9.89E+02	46.41	4.39E+02
34		1015-	1031	1023.77	511.55	1.40E+03	53.00	4.51E+02
35		1110-	1124	1118.84	559.09	1.31E+02	31.25	2.94E+02
36		1163-	1176	1168.43	583.88	8.78E+02	38.79	2.27E+02
37		1322-	1334	1326.71	663.02	2.93E+02	29.05	2.07E+02

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	1441-	1450	1445.78	722.56	7.47E+01	20.58	1.54E+02	
39	1479-	1493	1487.97	743.65	6.44E+01	23.84	1.75E+02	
40	1531-	1543	1534.73	767.03	4.09E+02	27.67	1.30E+02	
41	2542-	2561	2551.93	1275.63	3.72E+02	25.69	8.24E+01	
42	2658-	2672	2667.60	1333.46	5.68E+01	14.60	5.42E+01	
43	4462-	4482	4472.65	2235.99	1.83E+05	428.11	1.96E+02	
44	5225-	5244	5234.25	2616.79	3.38E+02	19.81	1.53E+01	

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: LL85101542
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	1.000	2236.00*	100.00	7.889E+02	1.764E+02
Np-237	0.970	300.10*	6.63	6.120E+00	8.255E-01
		311.90*	38.60	3.497E+00	2.078E-01
Pu-238	0.965	152.68*	0.00	1.909E+06	4.218E+04
Pu-239	0.967	413.70*	0.00	7.061E+05	1.589E+04
Pu-239A	0.967	129.29*	0.01	5.735E+05	1.447E+04
Am-241	0.975	662.42*	0.00	1.338E+05	1.334E+04
Am-241D	0.979	722.01*	0.00	7.444E+04	2.052E+04

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-19-07 4:38:26 PM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	31.95	2.0176E+01	4.36
2	49.95	6.1479E+01	4.43
3	60.16	1.4048E+03	0.41
4	75.61	1.5480E+01	13.35
5	100.26	4.9636E+02	0.95
6	104.14	4.8732E+01	4.91
7	111.69	3.5417E+01	6.78
8	115.81	1.7155E+01	14.27
10	144.75	8.7726E+00	17.63
12	161.67	3.4564E+00	42.77
13	172.10	9.4307E+00	15.15
14	179.87	5.0140E+00	24.33
15	196.35	9.9500E+00	11.04
16	204.20	6.6494E+00	22.56
17	208.68	3.6396E+01	4.45
18	239.25	1.4022E+01	7.71
19	256.07	4.2460E+00	17.19
M 20	298.14	2.8696E+00	14.67
M 23	333.45	3.3474E+01	2.75
m 24	336.47	1.0084E+01	4.35
25	345.67	1.6150E+01	8.20
26	368.76	9.7862E+00	7.85
27	375.69	5.7499E+01	2.21
M 28	380.83	1.2586E+01	4.23
m 29	383.43	1.2100E+01	4.23
30	393.55	2.7637E+01	2.65
32	423.28	4.0159E+00	8.71
33	452.13	8.7023E+00	4.70
34	511.55	1.2308E+01	3.80
35	559.09	1.1498E+00	23.91
36	583.88	7.7200E+00	4.43
39	743.65	5.6684E-01	36.99
40	767.03	3.5974E+00	6.77
41	1275.63	3.2680E+00	6.92
42	1333.46	4.9930E-01	25.71
44	2616.79	2.9701E+00	5.87

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)	Concentration (uCi/g)
Pulser	8.45E+02 +/-	1.25E+02
SE-75	< 1.66E-01 +/-	8.47E-03
EU-152x	< 2.71E-01 +/-	1.78E-02
U-233	< 1.15E+04 +/-	6.08E+02
U-235	8.66E-02 +/-	2.67E-02
Np-237	2.98E+00 +/-	1.76E-01
Pu-238	1.85E+06 +/-	9.03E+04
U-238	6.27E+00 +/-	2.11E+00
Pu-239	6.36E+05 +/-	1.71E+04
Pu-239A	5.04E+05 +/-	1.31E+04
Am-241	1.12E+05 +/-	1.06E+04
Am-241D	8.86E+04 +/-	1.39E+04
Pu-241	4.57E+04 +/-	1.96E+04

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

U-235	4.01E-02	+/-	1.24E-02
Np-237	4.23E-03	+/-	2.50E-04
Pu-238	1.08E-01	+/-	5.27E-03
U-238	1.87E+01	+/-	6.28E+00
Pu-239	1.02E+01	+/-	2.75E-01
Pu-239A	8.12E+00	+/-	2.11E-01
Am-241	3.26E-02	+/-	3.10E-03
Pu-241	4.42E-04	+/-	1.90E-04

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	7.89E+02 +/-	1.76E+02	1.79E-02 +/-	4.01E-03
SE-75	< 6.31E-01 +/-	5.60E-03	< 1.43E-05 +/-	1.27E-07
EU-152x	< 7.86E-01 +/-	1.39E-02	< 1.79E-05 +/-	3.17E-07
U-233	< 4.85E+04 +/-	1.02E+03	< 1.10E+00 +/-	2.33E-02
U-235	< 9.15E-01 +/-	2.05E-02	< 2.08E-05 +/-	4.65E-07
Np-237	3.65E+00 +/-	2.02E-01	8.30E-05 +/-	4.58E-06
Pu-238	1.91E+06 +/-	4.22E+04	4.34E+01 +/-	9.59E-01
U-238	< 2.24E+01 +/-	3.55E-01	< 5.10E-04 +/-	8.06E-06
Pu-239	7.06E+05 +/-	1.59E+04	1.60E+01 +/-	3.61E-01
Pu-239A	5.73E+05 +/-	1.45E+04	1.30E+01 +/-	3.29E-01
Am-241	1.34E+05 +/-	1.33E+04	3.04E+00 +/-	3.03E-01
Am-241D	7.44E+04 +/-	2.05E+04	1.69E+00 +/-	4.66E-01
Pu-241	< 5.26E+05 +/-	9.63E+03	< 1.20E+01 +/-	2.19E-01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)
Np-237	5.19E-03 +/- 2.86E-04
Pu-238	1.12E-01 +/- 2.46E-03
Pu-239	1.14E+01 +/- 2.56E-01
Pu-239A	9.23E+00 +/- 2.33E-01
Am-241	3.91E-02 +/- 3.89E-03

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.000 +/- 0.0000
Matrix Longitudinal Ratio: 0.655 +/- 0.0465

Source Vertical Ratio: 0.000 +/- 0.0000
Matrix Vertical Ratio: 0.703 +/- 0.0168

NUDS could not find the transmission peak in one radial segment.
NUDS could not find the source peak in any radial segment.

Radioassay Data Sheet
Procedure ID & Rev: WCP-55 03/07/2002

Wed Dec 19 04:22:13 2007
Software Version: GWAS v2.3bGEN

Drum ID	:	LL85501318	Gross Weight (kg)	:	73.0
Sequence Number	:	2509	Fill Height (%)	:	100.0
Assay Date	:	12/17/07 09:16:43	Density (g/cc)	:	0.21
Batch Number	:		Net Weight (kg)	:	42.90
Site ID	:		Waste Matrix Code	:	
			TRUCON	:	

		Errors at 1.00 Sigma
TRU Alpha Activity Concentration:	9.96e-05	+/- 1.25e-05 Ci/g
Total Pu-239 Equiv Activity:	4.31e+00	+/- 5.33e-01 Ci
Total Pu-239 Fissile Gram Equiv:	4.08e+01	+/- 7.92e+00 g
Decay Heat:	1.37e-01	+/- 1.70e-02 W
Total Pu Mass:	4.27e+01	+/- 7.94e+00 g
TMU:	19.88%	
Waste Classification:	TRU	

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
Pu-238	1.12e-01	1.70e+00
Pu-239	9.33e+01	1.14e-01
Pu-240	6.40e+00	1.65e+00
Pu-241	1.30e-01	1.82e+00
Pu-242	3.06e-02	1.00e+01
Am-241	3.81e-01	1.05e+00
Am-243	2.47e-04	1.67e+01
Np-237	0.00e+00	0.00e+00
U-235	1.76e+00	1.45e+01

Activity Errors

Isotope	1.00 Sigma Mass (g)	Alpha Activity/ Error/Isotope Mass (g)	1.00 Sigma Isotope (Ci)	Error/Isotope (Ci)	MDA (g)
Pu-238	4.78e-02	9.53e-03	8.18e-01	1.63e-01	1.69e-03
Pu-239	3.98e+01	7.92e+00	2.47e+00	4.91e-01	2.15e-01
Pu-240	2.73e+00	5.44e-01	6.19e-01	1.24e-01	0.00e+00
Pu-241	5.54e-02	1.11e-02	5.73e+00	1.14e+00	3.01e-03
Pu-242	1.30e-02	2.90e-03	5.12e-05	1.14e-05	0.00e+00
Am-241	1.06e-01	2.12e-02	3.62e-01	7.25e-02	4.16e-03
Am-243	1.05e-04	2.74e-05	2.10e-05	5.46e-06	0.00e+00
Np-237	4.25e-02	8.15e-03	2.99e-05	5.74e-06	9.42e-04
U-235	7.53e-01	1.85e-01	1.63e-06	4.00e-07	1.98e-01
*U-238	<LLD	0.00e+00	0.00e+00	0.00e+00	2.06e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	1.54e+00
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature



Reviewer Signature

Date

12-19-07

Date

Software Version: GWAS v2.3bGEN
Counter Number: SGS
Data Review for Container: LL85501318
Item Description Code: \Count Type: DEBRIS
Sequence Number: 2509
Assayed on: 12/17/07 09:16:43
Report Generated: 12/19/07 16:21:58
AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

REVIEW Pu-240 Wt Pct -2 Sigma error <6.18> greater than <5.87> Review MGA R
Pu-240 Wt Pct error <1.65> is within limits
Pu-238 Wt Pct error <1.70> is within limits
REVIEW QFIT <1.46> > <1.20> Review MGA Results OK
REVIEW MGAERR13: Efficiency curvature boundary reached OK

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.206> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <2.41e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <0.68> is acceptable in Segment 1
Pulser value <0.99> is within range in Segment 1
DEAD TIME percentage <0.80> is acceptable in Segment 2
Pulser value <0.99> is within range in Segment 2
DEAD TIME percentage <0.80> is acceptable in Segment 3
Pulser value <0.99> is within range in Segment 3
DEAD TIME percentage <0.80> is acceptable in Segment 4
Pulser value <0.99> is within range in Segment 4
DEAD TIME percentage <0.82> is acceptable in Segment 5
Pulser value <0.99> is within range in Segment 5
DEAD TIME percentage <0.83> is acceptable in Segment 6
Pulser value <0.99> is within range in Segment 6
DEAD TIME percentage <0.90> is acceptable in Segment 7
Pulser value <0.99> is within range in Segment 7
DEAD TIME percentage <1.06> is acceptable in Segment 8
Pulser value <0.99> is within range in Segment 8
DEAD TIME percentage <1.30> is acceptable in Segment 9
Pulser value <0.99> is within range in Segment 9
DEAD TIME percentage <2.62> is acceptable in Segment 10
Pulser value <0.99> is within range in Segment 10
DEAD TIME percentage <7.35> is acceptable in Segment 11
Pulser value <1.01> is within range in Segment 11
DEAD TIME percentage <8.99> is acceptable in Segment 12
Pulser value <1.01> is within range in Segment 12
DEAD TIME percentage <5.21> is acceptable in Segment 13
Pulser value <1.00> is within range in Segment 13
DEAD TIME percentage <2.08> is acceptable in Segment 14
Pulser value <0.99> is within range in Segment 14
DEAD TIME percentage <1.18> is acceptable in Segment 15
Pulser value <0.99> is within range in Segment 15
DEAD TIME percentage <0.90> is acceptable in Segment 16

Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
Transmission results are acceptable in Segment 2
Transmission results are acceptable in Segment 3
Transmission results are acceptable in Segment 4
Transmission results are acceptable in Segment 5
Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

All energy peaks within <3.00e+00> RCHISQ limit

Section 7 - FGE MASS REVIEW

FGE Mass <48.70> is within limits

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

Am-241 ratio <376.07> is above lower limit <200.00>
Np-237 ratio <937.77> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <39.83> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Am-241D > Am-241A: Calculation not performed

OK - Checked..

Independent Reviewer:

Date: 12-19-07

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS
Data Review for Container: LL85501318
Item Description Code:
Sequence Number: 2509
Assayed on: 12/17/07 09:16:43
AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA	
Pu-240 Wt Pct -2 Sigma error is greater than upper limit.	OK
QFIT is greater than upper limit.	OK. NQFIT OK
MGAERR13	OK
SECTION 9 - IDC COUNT TYPE	
IDC is not available.	N/A

Technical Reviewer:



Date: 12-19-07

M G A R E P O R T

Report generated on:

12-19-07 4:11:55 PM

MGA version: MGA V9.5 CI

Spectrum ID: 11202509.CNF Sens : 30.0% LT: 54.2 Mins DT: 4.39
Measurement date: 12-17-07 Declared date: 12-17-07

Sample ID: LL85501318 Detector: Total counts: 4.380E+06

Pu g/cm² = 0.6248 Cd g/cm² = 1.8000 FWHM at 122 keV = 621 eV
QFIT = 1.46 FWHM at 208 keV = 794 eV
NQFIT = 1.04

Isotope	Relative to Pu-239	%*		%*		Relative to Pu-241	Err	Isotope analysis at			
		Meas. date	Decl. date	% weight	% Err			% weight	% Err		
Pu-238	0.001199	1.7	1.6	0.8619	2.1	0.11194	1.70	0.11194	1.70		
Pu-239	1.000000	0.0	0.8	718.6484	1.8	93.33202	0.11	93.33202	0.11		
Pu-240	0.068525	1.8	1.6	49.2455	2.2	6.39560	1.65	6.39560	1.65		
Pu-241	0.001392	1.8	1.6	1.0000	0.0	0.12987	1.82	0.12987	1.82		
Pu-242	(New alg.)			0.2354	(10)	0.03057	(10)	0.03057	(10)		
Am-241	0.004079	1.1	0.8	2.9314	1.8	0.38071	1.05	0.38071	1.05		
Am-243 (Np-239)						0.00025	16.73				
U-235	0.018904	14.5	14.5			1.76438	14.49	1.76438	14.49		

Pu-240 effective (meas. date) = 6.729 +/- 1.75%
Am-241 separated about 28.395 +/- 0.328 years ago
Am/Pu-241 weight ratio = 2.93140 +/- 1.81%

Messages :

Lead x-rays detected.
Efficiency curvature boundary reached.
Pu-241/Pu-239 efficiency changed in MGACAL by 1%.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Gamma Waste Assay

Sample Information

File Name: C:\WAS\DATA\2600\11102509.S11
Sample ID: LL85501318 Count Sequence Number: 2509
Assay Start: 12-17-07 9:16:44 AM
Description 1:
Description 2:
Location:
Comment:
Waste Type:
Weight: Gross: 73000.0 g Net: 42900.0 g
Density: 0.206 g /ml
Container Type: 55 Gal Galv 66.3
Container: Volume: 208000. ml Full: 100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: 55 Gal Galv 66.3
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps
Geometric Correction Factor(SWCONTGCF): 0.760
Date of efficiency calibration approval: 8-27-2003 2:05:34 PM
Mu Factors response file: Lucite response
Transmission Calib. Time: 12-10-2007 3:06:26 PM 26364

Reviewed by:

Date: 12-19-07



Segment Results

Segment: 1

Detector: DET01 (# 1)

Position: 1

Elapsed Live Time: 114.22 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.416 +/- 0.0121
SE-75	264.65	0.000 +/- 0.0000	0.491 +/- 0.0105
SE-75	279.53	0.000 +/- 0.0000	0.494 +/- 0.0112
SE-75	400.65	0.000 +/- 0.0000	0.534 +/- 0.0133

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.81	2.74E-01 +/- 1.02E-01	1.80E+00	3.97E-10 +/- 2.85E-09
2	48.91	1.98E+00 +/- 2.77E-01	1.54E+00	6.31E-07 +/- 1.94E-06
3	60.14	5.07E+00 +/- 3.17E-01	1.48E+00	6.31E-06 +/- 1.16E-05
4	100.53	2.44E+00 +/- 3.34E-01	1.40E+00	1.58E-04 +/- 4.06E-05
5	136.00	4.08E-01 +/- 2.31E-01	1.36E+00	3.25E-04 +/- 2.85E-05
6	152.68	1.58E+00 +/- 2.16E-01	1.36E+00	3.67E-04 +/- 4.47E-05
7	311.90	1.09E-01 +/- 7.22E-02	1.28E+00	2.76E-04 +/- 1.41E-05
8	413.70	1.67E-01 +/- 7.18E-02	1.25E+00	2.03E-04 +/- 1.44E-05
9	964.13	4.77E-02 +/- 3.14E-02	1.16E+00	9.44E-05 +/- 5.09E-06
10	2236.00	1.00E+02 +/- 1.49E+00	1.11E+00	3.40E-05 +/- 2.15E-05

Segment: 2

Detector: DET01 (# 1)

Position: 2

Elapsed Live Time: 114.08 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.371 +/- 0.0116
SE-75	264.65	0.000 +/- 0.0000	0.463 +/- 0.0099
SE-75	279.53	0.000 +/- 0.0000	0.469 +/- 0.0107
SE-75	400.65	0.000 +/- 0.0000	0.503 +/- 0.0125

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.94	4.45E-01 +/-	1.17E-01	1.92E+00 1.85E-05 +/- 1.16E-04
2	60.18	8.49E+00 +/-	4.05E-01	1.55E+00 1.33E-04 +/- 2.14E-04
M 3	100.51	9.09E+00 +/-	5.11E-01	1.46E+00 3.13E-04 +/- 7.11E-05
m 4	103.66	8.39E-01 +/-	1.40E-01	1.46E+00 3.24E-04 +/- 6.05E-05
5	129.29	1.32E+00 +/-	2.55E-01	1.43E+00 3.88E-04 +/- 2.47E-05
6	152.68	4.21E+00 +/-	3.09E-01	1.41E+00 4.18E-04 +/- 4.48E-05
7	333.51	5.18E-01 +/-	1.22E-01	1.30E+00 3.42E-04 +/- 1.64E-05
8	345.51	2.50E-01 +/-	7.50E-02	1.30E+00 3.34E-04 +/- 1.66E-05
9	380.94	2.36E-01 +/-	8.64E-02	1.29E+00 3.10E-04 +/- 1.77E-05
10	393.41	2.07E-01 +/-	7.46E-02	1.29E+00 3.02E-04 +/- 1.81E-05
11	413.70	4.23E-01 +/-	8.92E-02	1.28E+00 2.89E-04 +/- 1.85E-05
12	511.42	9.03E-01 +/-	9.95E-02	1.25E+00 2.39E-04 +/- 1.72E-05
13	662.42	1.21E-01 +/-	5.13E-02	1.22E+00 1.86E-04 +/- 1.15E-05
14	722.01	9.40E-02 +/-	3.60E-02	1.21E+00 1.71E-04 +/- 9.64E-06
15	1085.91	4.36E-02 +/-	2.30E-02	1.16E+00 1.20E-04 +/- 5.31E-06
16	1275.72	3.41E-01 +/-	5.71E-02	1.15E+00 1.08E-04 +/- 5.00E-06
17	1408.01	1.73E-02 +/-	1.22E-02	1.14E+00 1.02E-04 +/- 6.88E-06
18	2236.00	1.00E+02 +/-	1.50E+00	1.12E+00 9.73E-05 +/- 5.41E-05

Segment: 3

Detector: DET01 (# 1)

Position: 3

Elapsed Live Time: 114.08 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.264 +/- 0.0093
SE-75	264.65	0.000 +/- 0.0000	0.352 +/- 0.0076
SE-75	279.53	0.000 +/- 0.0000	0.365 +/- 0.0085
SE-75	400.65	0.000 +/- 0.0000	0.406 +/- 0.0104

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.04	4.90E-01 +/-	1.33E-01	2.30E+00 3.45E-06 +/- 3.30E-06
2	60.19	9.54E+00 +/-	4.28E-01	1.78E+00 8.08E-05 +/- 2.79E-05
3	100.46	7.28E+00 +/-	4.69E-01	1.64E+00 3.02E-04 +/- 2.99E-05
M 4	125.92	6.96E-01 +/-	1.56E-01	1.60E+00 4.07E-04 +/- 2.27E-05
m 5	130.11	1.12E+00 +/-	2.05E-01	1.60E+00 4.20E-04 +/- 2.22E-05
6	152.68	3.91E+00 +/-	3.20E-01	1.57E+00 4.70E-04 +/- 2.29E-05
7	208.63	4.59E-01 +/-	1.90E-01	1.50E+00 4.92E-04 +/- 2.59E-05
8	300.10	2.62E-01 +/-	1.27E-01	1.42E+00 4.16E-04 +/- 1.88E-05
9	345.90	1.52E-01 +/-	9.11E-02	1.40E+00 3.72E-04 +/- 1.55E-05
10	413.70	3.14E-01 +/-	8.02E-02	1.38E+00 3.16E-04 +/- 1.28E-05
11	511.87	4.88E-01 +/-	9.62E-02	1.34E+00 2.55E-04 +/- 1.13E-05
12	662.42	9.30E-02 +/-	5.90E-02	1.29E+00 1.95E-04 +/- 9.62E-06
13	722.01	6.80E-02 +/-	5.78E-02	1.28E+00 1.79E-04 +/- 8.87E-06
14	1112.12	1.95E-02 +/-	1.68E-02	1.21E+00 1.27E-04 +/- 4.65E-06
15	1275.67	6.87E-02 +/-	4.54E-02	1.20E+00 1.19E-04 +/- 5.29E-06
16	1408.01	4.34E-02 +/-	1.94E-02	1.19E+00 1.15E-04 +/- 7.14E-06
17	2236.00	1.00E+02 +/-	1.50E+00	1.15E+00 1.32E-04 +/- 3.24E-05

Segment: 4

Detector: DET01 (# 1)

Position: 4

Elapsed Live Time: 114.08 sec

Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.182 +/- 0.0072
SE-75	264.65	0.000 +/- 0.0000	0.264 +/- 0.0058
SE-75	279.53	0.000 +/- 0.0000	0.273 +/- 0.0065
SE-75	400.65	0.000 +/- 0.0000	0.327 +/- 0.0086

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.17	8.90E+00 +/-	3.91E-01	2.04E+00 3.62E-05 +/- 5.76E-05
2	100.39	4.73E+00 +/-	4.60E-01	1.85E+00 2.70E-04 +/- 6.11E-05
M 3	125.93	5.83E-01 +/-	1.57E-01	1.80E+00 3.99E-04 +/- 2.37E-05
m 4	129.91	8.57E-01 +/-	1.93E-01	1.79E+00 4.14E-04 +/- 2.67E-05

5	152.68	2.27E+00	+/-	2.85E-01	1.75E+00	4.70E-04	+/-	4.99E-05
6	208.75	4.73E-01	+/-	2.02E-01	1.66E+00	4.80E-04	+/-	5.04E-05
7	375.73	2.09E-01	+/-	8.26E-02	1.50E+00	3.21E-04	+/-	1.71E-05
8	413.70	1.75E-01	+/-	5.98E-02	1.48E+00	2.94E-04	+/-	1.78E-05
9	662.42	5.18E-02	+/-	3.96E-02	1.37E+00	1.90E-04	+/-	1.13E-05
10	1112.12	4.21E-02	+/-	2.40E-02	1.27E+00	1.26E-04	+/-	5.66E-06
11	2236.00	1.00E+02	+/-	1.49E+00	1.19E+00	7.00E-05	+/-	3.84E-05

Segment: 5

Detector: DET01 (# 1)

Position: 5

Elapsed Live Time: 114.06 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.192 +/- 0.0075
SE-75	264.65	0.000 +/- 0.0000	0.276 +/- 0.0060
SE-75	279.53	0.000 +/- 0.0000	0.285 +/- 0.0067
SE-75	400.65	0.000 +/- 0.0000	0.330 +/- 0.0087

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.06	3.49E-01 +/- 1.25E-01	2.68E+00	2.78E-07 +/- 1.83E-06
2	60.17	6.32E+00 +/- 3.85E-01	2.00E+00	4.79E-05 +/- 8.23E-05
3	100.36	4.44E+00 +/- 4.71E-01	1.82E+00	2.83E-04 +/- 6.83E-05
4	125.81	3.96E-01 +/- 1.97E-01	1.77E+00	3.96E-04 +/- 2.36E-05
5	129.29	5.43E-01 +/- 2.48E-01	1.77E+00	4.07E-04 +/- 2.65E-05
6	152.68	1.62E+00 +/- 2.48E-01	1.72E+00	4.54E-04 +/- 5.17E-05
7	208.65	2.37E-01 +/- 1.53E-01	1.64E+00	4.56E-04 +/- 5.12E-05
8	300.10	1.64E-01 +/- 1.09E-01	1.54E+00	3.72E-04 +/- 1.87E-05
9	375.83	1.94E-01 +/- 7.53E-02	1.49E+00	3.11E-04 +/- 1.79E-05
10	413.70	3.22E-01 +/- 6.65E-02	1.47E+00	2.86E-04 +/- 1.90E-05
11	2236.00	1.00E+02 +/- 1.49E+00	1.19E+00	5.76E-05 +/- 3.29E-05

Segment: 6

Detector: DET01 (# 1)

Position: 6

Elapsed Live Time: 114.04 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.173 +/- 0.0068
SE-75	264.65	0.000 +/- 0.0000	0.264 +/- 0.0058
SE-75	279.53	0.000 +/- 0.0000	0.273 +/- 0.0065
SE-75	400.65	0.000 +/- 0.0000	0.316 +/- 0.0084

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.14	4.32E-01 +/- 1.53E-01	2.81E+00	4.86E-07 +/- 3.04E-06
2	49.40	1.67E+00 +/- 3.51E-01	2.21E+00	2.00E-05 +/- 5.31E-05
3	60.16	6.02E+00 +/- 3.63E-01	2.07E+00	6.08E-05 +/- 9.93E-05
4	100.39	2.82E+00 +/- 3.85E-01	1.88E+00	3.12E-04 +/- 7.18E-05
5	129.29	7.16E-01 +/- 2.64E-01	1.82E+00	4.31E-04 +/- 2.73E-05
6	152.68	9.43E-01 +/- 2.59E-01	1.77E+00	4.74E-04 +/- 5.16E-05
7	375.86	1.14E-01 +/- 7.77E-02	1.51E+00	3.33E-04 +/- 1.84E-05
8	393.65	8.51E-02 +/- 4.51E-02	1.51E+00	3.22E-04 +/- 1.90E-05
9	413.70	1.46E-01 +/- 5.78E-02	1.49E+00	3.09E-04 +/- 1.95E-05
10	1001.03	4.35E-02 +/- 1.95E-02	1.30E+00	1.45E-04 +/- 6.25E-06
11	2236.00	1.00E+02 +/- 1.50E+00	1.20E+00	4.34E-05 +/- 2.42E-05

Segment: 7 Detector: DET01 (# 1) Position: 7

Elapsed Live Time: 113.96 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.290 +/- 0.0094
SE-75	264.65	0.000 +/- 0.0000	0.390 +/- 0.0084
SE-75	279.53	0.000 +/- 0.0000	0.402 +/- 0.0093
SE-75	400.65	0.000 +/- 0.0000	0.447 +/- 0.0113

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.25	3.68E-01 +/-	1.25E-01	2.18E+00 5.55E-09 +/- 3.14E-08
2	60.14	8.22E+00 +/-	4.74E-01	1.71E+00 1.60E-05 +/- 2.38E-05
3	100.42	2.65E+00 +/-	4.81E-01	1.59E+00 2.51E-04 +/- 5.37E-05
4	129.29	4.94E-01 +/-	2.87E-01	1.55E+00 4.41E-04 +/- 2.71E-05
5	152.68	7.45E-01 +/-	2.69E-01	1.52E+00 5.26E-04 +/- 5.21E-05
6	208.89	2.82E-01 +/-	1.87E-01	1.45E+00 5.47E-04 +/- 5.31E-05
7	413.70	1.29E-01 +/-	6.57E-02	1.33E+00 3.17E-04 +/- 1.88E-05
8	662.42	4.36E-02 +/-	2.88E-02	1.26E+00 2.03E-04 +/- 1.17E-05
9	1112.12	6.06E-02 +/-	2.29E-02	1.19E+00 1.32E-04 +/- 5.60E-06
10	2236.00	1.00E+02 +/-	1.50E+00	1.14E+00 5.07E-05 +/- 2.69E-05

Segment: 8

Detector: DET01 (# 1)

Position: 8

Elapsed Live Time: 113.78 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.236 +/- 0.0087
SE-75	264.65	0.000 +/- 0.0000	0.320 +/- 0.0070
SE-75	279.53	0.000 +/- 0.0000	0.326 +/- 0.0077
SE-75	400.65	0.000 +/- 0.0000	0.375 +/- 0.0098

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.21	8.35E-01 +/-	1.91E-01	2.42E+00 7.86E-06 +/- 7.59E-06
2	60.14	1.10E+01 +/-	5.34E-01	1.85E+00 1.10E-04 +/- 3.84E-05
3	67.89	4.34E-01 +/-	2.63E-01	1.81E+00 1.54E-04 +/- 4.18E-05
4	100.47	4.36E+00 +/-	5.55E-01	1.70E+00 3.29E-04 +/- 3.25E-05
5	129.29	6.28E-01 +/-	3.26E-01	1.66E+00 4.27E-04 +/- 2.26E-05
6	152.68	1.52E+00 +/-	3.12E-01	1.62E+00 4.67E-04 +/- 2.32E-05
7	400.66	8.07E-02 +/-	4.59E-02	1.42E+00 3.16E-04 +/- 1.29E-05
8	413.70	1.67E-01 +/-	7.71E-02	1.41E+00 3.06E-04 +/- 1.25E-05
9	1408.01	4.34E-02 +/-	1.94E-02	1.20E+00 1.13E-04 +/- 7.00E-06
10	2236.00	1.00E+02 +/-	1.50E+00	1.17E+00 1.19E-04 +/- 2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 113.50 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.217 +/- 0.0077
SE-75	264.65	0.000 +/- 0.0000	0.319 +/- 0.0069
SE-75	279.53	0.000 +/- 0.0000	0.327 +/- 0.0077
SE-75	400.65	0.000 +/- 0.0000	0.386 +/- 0.0100

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.90	9.00E-01 +/- 2.00E-01	2.54E+00	5.74E-09 +/- 3.48E-08
2	60.13	1.73E+01 +/- 6.54E-01	1.91E+00	1.64E-05 +/- 2.57E-05
3	100.35	4.46E+00 +/- 6.79E-01	1.75E+00	2.43E-04 +/- 5.42E-05
4	152.68	1.63E+00 +/- 3.72E-01	1.66E+00	4.97E-04 +/- 5.14E-05
5	208.62	3.83E-01 +/- 2.41E-01	1.57E+00	5.11E-04 +/- 5.15E-05
6	279.54	3.55E-01 +/- 2.40E-01	1.48E+00	4.23E-04 +/- 2.28E-05
7	413.70	1.77E-01 +/- 8.21E-02	1.40E+00	2.88E-04 +/- 1.83E-05
8	2236.00	1.00E+02 +/- 1.50E+00	1.16E+00	6.12E-05 +/- 3.31E-05

Segment: 10

Detector: DET01 (# 1)

Position: 10

Elapsed Live Time: 111.99 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.307 +/- 0.0110
SE-75	264.65	0.000 +/- 0.0000	0.405 +/- 0.0088
SE-75	279.53	0.000 +/- 0.0000	0.415 +/- 0.0097
SE-75	400.65	0.000 +/- 0.0000	0.463 +/- 0.0118

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.78	2.63E+00 +/-	3.37E-01	2.13E+00 1.61E-05 +/- 1.61E-05
2	60.14	7.91E+01 +/-	1.47E+00	1.68E+00 1.37E-04 +/- 4.88E-05
3	99.43	1.08E+01 +/-	1.04E+00	1.56E+00 3.30E-04 +/- 3.40E-05
4	111.70	2.84E+00 +/-	6.04E-01	1.54E+00 3.72E-04 +/- 2.73E-05
5	129.29	1.11E+01 +/-	6.91E-01	1.52E+00 4.15E-04 +/- 2.22E-05
6	208.67	5.63E+00 +/-	5.93E-01	1.43E+00 4.56E-04 +/- 2.51E-05
7	255.88	5.69E-01 +/-	3.92E-01	1.39E+00 4.29E-04 +/- 2.23E-05
8	300.10	1.07E+00 +/-	3.30E-01	1.36E+00 3.96E-04 +/- 1.86E-05
9	311.90	7.10E+00 +/-	4.77E-01	1.36E+00 3.87E-04 +/- 1.76E-05
10	321.52	4.77E-01 +/-	3.31E-01	1.35E+00 3.80E-04 +/- 1.70E-05
M 11	333.46	4.05E+00 +/-	3.49E-01	1.35E+00 3.71E-04 +/- 1.62E-05
m 12	336.36	1.48E+00 +/-	1.82E-01	1.35E+00 3.68E-04 +/- 1.60E-05
13	345.66	2.26E+00 +/-	3.50E-01	1.34E+00 3.62E-04 +/- 1.54E-05
14	368.63	1.23E+00 +/-	3.14E-01	1.33E+00 3.45E-04 +/- 1.43E-05
15	375.76	6.27E+00 +/-	4.64E-01	1.33E+00 3.40E-04 +/- 1.40E-05
M 16	380.93	1.83E+00 +/-	2.07E-01	1.33E+00 3.37E-04 +/- 1.38E-05
m 17	383.45	1.38E+00 +/-	1.68E-01	1.33E+00 3.35E-04 +/- 1.37E-05
18	393.60	3.22E+00 +/-	2.72E-01	1.32E+00 3.28E-04 +/- 1.34E-05
19	413.70	9.26E+00 +/-	3.52E-01	1.32E+00 3.15E-04 +/- 1.29E-05
20	423.32	5.15E-01 +/-	1.25E-01	1.31E+00 3.09E-04 +/- 1.27E-05
21	443.98	1.73E-01 +/-	1.04E-01	1.31E+00 2.97E-04 +/- 1.23E-05
22	452.17	1.04E+00 +/-	1.20E-01	1.30E+00 2.92E-04 +/- 1.22E-05
23	662.42	3.79E-01 +/-	9.76E-02	1.25E+00 2.06E-04 +/- 1.03E-05
24	722.01	2.72E-01 +/-	5.96E-02	1.23E+00 1.89E-04 +/- 9.55E-06
25	867.39	1.07E-01 +/-	3.79E-02	1.21E+00 1.60E-04 +/- 7.45E-06
26	2236.00	1.00E+02 +/-	1.51E+00	1.13E+00 9.04E-05 +/- 2.29E-05

Segment: 11

Detector: DET01 (# 1)

Position: 11

Elapsed Live Time: 106.55 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.103 +/- 0.0082
SE-75	264.65	0.000 +/- 0.0000	0.200 +/- 0.0046
SE-75	279.53	0.000 +/- 0.0000	0.213 +/- 0.0057
SE-75	400.65	0.000 +/- 0.0000	0.252 +/- 0.0075

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
M 1	32.00	6.23E+00 +/-	4.13E-01	3.51E+00 1.33E-03 +/- 8.64E-03
m 2	33.94	3.39E+00 +/-	3.44E-01	3.34E+00 1.16E-03 +/- 6.75E-03
3	50.07	4.42E+00 +/-	1.05E+00	2.64E+00 6.00E-04 +/- 1.59E-03
4	60.16	3.64E+02 +/-	4.95E+00	2.47E+00 5.03E-04 +/- 8.47E-04
5	99.34	6.62E+01 +/-	1.97E+00	2.21E+00 4.09E-04 +/- 1.03E-04
6	111.68	1.49E+01 +/-	1.32E+00	2.17E+00 4.03E-04 +/- 4.47E-05
7	116.09	4.28E+00 +/-	1.66E+00	2.15E+00 4.02E-04 +/- 3.24E-05
M 8	125.92	1.10E+01 +/-	5.51E-01	2.13E+00 4.00E-04 +/- 2.37E-05
m 9	129.97	7.21E+01 +/-	1.66E+00	2.12E+00 3.99E-04 +/- 2.64E-05
10	148.57	2.33E+00 +/-	8.84E-01	2.05E+00 3.97E-04 +/- 4.23E-05
11	171.99	2.09E+00 +/-	7.95E-01	1.97E+00 3.95E-04 +/- 4.96E-05
12	179.81	1.43E+00 +/-	6.41E-01	1.95E+00 3.93E-04 +/- 4.94E-05
13	189.82	2.29E+00 +/-	9.13E-01	1.92E+00 3.92E-04 +/- 4.81E-05
14	196.29	2.24E+00 +/-	5.66E-01	1.90E+00 3.91E-04 +/- 4.68E-05
15	208.67	3.17E+01 +/-	1.23E+00	1.87E+00 3.88E-04 +/- 4.34E-05
16	244.70	7.09E-01 +/-	4.21E-01	1.78E+00 3.78E-04 +/- 3.13E-05
17	256.14	2.11E+00 +/-	5.74E-01	1.75E+00 3.74E-04 +/- 2.77E-05
M 18	264.51	8.21E-01 +/-	2.82E-01	1.73E+00 3.71E-04 +/- 2.53E-05
m 19	268.08	2.23E+00 +/-	4.58E-01	1.73E+00 3.70E-04 +/- 2.43E-05
M 20	298.03	1.18E+00 +/-	2.42E-01	1.69E+00 3.58E-04 +/- 1.83E-05
m 21	300.76	5.51E+00 +/-	5.12E-01	1.68E+00 3.57E-04 +/- 1.79E-05
22	311.90	3.41E+01 +/-	8.65E-01	1.67E+00 3.53E-04 +/- 1.69E-05
M 23	321.55	1.95E+00 +/-	3.29E-01	1.67E+00 3.49E-04 +/- 1.64E-05
m 24	324.08	2.23E+00 +/-	3.50E-01	1.67E+00 3.47E-04 +/- 1.64E-05
M 25	333.44	2.03E+01 +/-	7.53E-01	1.66E+00 3.43E-04 +/- 1.63E-05
m 26	336.40	7.36E+00 +/-	3.88E-01	1.66E+00 3.42E-04 +/- 1.63E-05
27	345.66	1.32E+01 +/-	6.96E-01	1.65E+00 3.38E-04 +/- 1.66E-05
28	375.68	3.60E+01 +/-	1.11E+00	1.63E+00 3.25E-04 +/- 1.79E-05
M 29	380.86	8.66E+00 +/-	4.56E-01	1.63E+00 3.23E-04 +/- 1.81E-05
m 30	383.45	8.72E+00 +/-	4.45E-01	1.62E+00 3.21E-04 +/- 1.82E-05
31	393.53	1.68E+01 +/-	6.01E-01	1.62E+00 3.17E-04 +/- 1.87E-05
32	399.08	9.23E-01 +/-	3.36E-01	1.61E+00 3.15E-04 +/- 1.89E-05
33	413.70	5.02E+01 +/-	9.69E-01	1.60E+00 3.08E-04 +/- 1.94E-05
34	423.24	2.86E+00 +/-	2.64E-01	1.60E+00 3.04E-04 +/- 1.97E-05
35	452.18	5.92E+00 +/-	3.20E-01	1.58E+00 2.92E-04 +/- 2.00E-05
36	619.57	3.85E-01 +/-	1.05E-01	1.48E+00 2.28E-04 +/- 1.48E-05
37	662.42	2.34E+00 +/-	1.74E-01	1.46E+00 2.15E-04 +/- 1.30E-05
38	689.30	2.33E-01 +/-	9.04E-02	1.45E+00 2.07E-04 +/- 1.19E-05
39	711.27	8.50E-02 +/-	5.69E-02	1.44E+00 2.00E-04 +/- 1.11E-05
40	722.01	9.41E-01 +/-	1.16E-01	1.44E+00 1.97E-04 +/- 1.08E-05
41	770.15	1.51E-01 +/-	8.60E-02	1.42E+00 1.85E-04 +/- 9.34E-06
42	1112.12	4.01E-02 +/-	2.97E-02	1.34E+00 1.23E-04 +/- 5.40E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	2236.00	1.00E+02 +/- 1.55E+00	1.24E+00	5.79E-05 +/- 3.30E-05

Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 104.66 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Minimum transmission used.

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.005 +/- 0.0025
SE-75	264.65	0.000 +/- 0.0000	0.101 +/- 0.0027
SE-75	279.53	0.000 +/- 0.0000	0.111 +/- 0.0037
SE-75	400.65	0.000 +/- 0.0000	0.151 +/- 0.0054

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.03	5.75E+00 +/- 5.05E-01	4.10E+00	2.35E-09 +/- 1.45E-08
2	50.16	1.29E+01 +/- 1.64E+00	4.10E+00	2.14E-06 +/- 5.39E-06
3	60.15	4.87E+02 +/- 6.48E+00	4.10E+00	1.30E-05 +/- 2.08E-05
4	99.32	8.14E+01 +/- 2.24E+00	4.10E+00	2.32E-04 +/- 5.61E-05
5	111.68	2.27E+01 +/- 1.48E+00	4.10E+00	3.25E-04 +/- 3.52E-05
6	116.01	3.35E+00 +/- 1.88E+00	4.10E+00	3.55E-04 +/- 2.84E-05
M 7	125.99	1.09E+01 +/- 5.81E-01	4.10E+00	4.17E-04 +/- 2.45E-05
m 8	129.95	9.54E+01 +/- 2.01E+00	4.10E+00	4.37E-04 +/- 2.81E-05
9	144.74	1.97E+00 +/- 9.87E-01	3.64E+00	4.97E-04 +/- 4.70E-05
10	148.57	5.23E+00 +/- 9.77E-01	3.50E+00	5.08E-04 +/- 5.12E-05
11	172.06	4.61E+00 +/- 1.17E+00	2.96E+00	5.45E-04 +/- 6.42E-05
12	179.60	1.48E+00 +/- 8.82E-01	2.85E+00	5.47E-04 +/- 6.44E-05
13	189.96	2.79E+00 +/- 1.01E+00	2.71E+00	5.45E-04 +/- 6.26E-05
14	196.32	3.78E+00 +/- 6.81E-01	2.64E+00	5.42E-04 +/- 6.05E-05
15	208.66	3.64E+01 +/- 1.38E+00	2.51E+00	5.31E-04 +/- 5.52E-05
16	256.01	3.28E+00 +/- 6.33E-01	2.16E+00	4.66E-04 +/- 3.20E-05
M 17	264.79	9.34E-01 +/- 2.96E-01	2.11E+00	4.53E-04 +/- 2.86E-05
m 18	268.09	2.40E+00 +/- 4.73E-01	2.10E+00	4.49E-04 +/- 2.74E-05
M 19	297.99	1.90E+00 +/- 2.75E-01	2.03E+00	4.06E-04 +/- 1.97E-05
m 20	300.76	6.43E+00 +/- 5.40E-01	2.02E+00	4.03E-04 +/- 1.93E-05
21	311.90	3.64E+01 +/- 9.23E-01	2.01E+00	3.88E-04 +/- 1.81E-05

M 22	321.58	1.86E+00	+/-	3.51E-01	1.99E+00	3.76E-04	+/-	1.75E-05
m 23	324.14	2.36E+00	+/-	3.94E-01	1.99E+00	3.73E-04	+/-	1.74E-05
M 24	333.40	2.43E+01	+/-	8.55E-01	1.97E+00	3.62E-04	+/-	1.72E-05
m 25	336.35	7.42E+00	+/-	4.03E-01	1.97E+00	3.59E-04	+/-	1.72E-05
26	345.66	1.74E+01	+/-	7.87E-01	1.96E+00	3.49E-04	+/-	1.72E-05
27	375.69	4.43E+01	+/-	1.26E+00	1.92E+00	3.19E-04	+/-	1.78E-05
M 28	380.82	1.08E+01	+/-	5.20E-01	1.91E+00	3.14E-04	+/-	1.80E-05
m 29	383.43	1.04E+01	+/-	4.86E-01	1.91E+00	3.12E-04	+/-	1.80E-05
30	393.56	2.08E+01	+/-	6.47E-01	1.89E+00	3.03E-04	+/-	1.82E-05
31	400.66	8.17E-01	+/-	3.38E-01	1.89E+00	2.98E-04	+/-	1.83E-05
32	413.70	6.33E+01	+/-	1.14E+00	1.87E+00	2.87E-04	+/-	1.84E-05
33	423.29	2.85E+00	+/-	3.20E-01	1.86E+00	2.80E-04	+/-	1.84E-05
34	452.12	7.60E+00	+/-	3.50E-01	1.83E+00	2.62E-04	+/-	1.82E-05
35	511.35	9.15E-01	+/-	1.78E-01	1.78E+00	2.31E-04	+/-	1.67E-05
36	619.31	5.22E-01	+/-	1.32E-01	1.69E+00	1.93E-04	+/-	1.28E-05
37	646.69	3.18E-01	+/-	9.81E-02	1.67E+00	1.86E-04	+/-	1.18E-05
M 38	659.47	2.81E-01	+/-	6.95E-02	1.67E+00	1.83E-04	+/-	1.14E-05
m 39	663.08	2.46E+00	+/-	2.39E-01	1.66E+00	1.82E-04	+/-	1.13E-05
40	722.01	1.28E+00	+/-	1.42E-01	1.63E+00	1.70E-04	+/-	9.57E-06
41	769.98	2.48E-01	+/-	9.30E-02	1.61E+00	1.62E-04	+/-	8.48E-06
42	1408.01	3.94E-02	+/-	2.42E-02	1.42E+00	1.08E-04	+/-	7.12E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	2236.00	1.00E+02 +/- 1.56E+00	1.34E+00	6.48E-05 +/- 3.54E-05
44	2295.30	1.29E-01 +/- 4.69E-02	1.34E+00	6.20E-05 +/- 3.70E-05

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 109.01 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.154 +/- 0.0073
SE-75	264.65	0.000 +/- 0.0000	0.240 +/- 0.0054
SE-75	279.53	0.000 +/- 0.0000	0.252 +/- 0.0063
SE-75	400.65	0.000 +/- 0.0000	0.302 +/- 0.0084

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.00	5.79E+00 +/- 4.88E-01	2.97E+00	1.70E-08 +/- 1.11E-07
2	50.07	4.01E+00 +/- 9.37E-01	2.29E+00	5.03E-06 +/- 1.34E-05
3	60.16	2.49E+02 +/- 3.52E+00	2.16E+00	2.29E-05 +/- 3.87E-05
4	99.36	4.13E+01 +/- 1.54E+00	1.95E+00	2.50E-04 +/- 6.31E-05
5	111.68	4.53E+00 +/- 1.19E+00	1.92E+00	3.29E-04 +/- 3.66E-05
6	116.03	8.98E+00 +/- 1.23E+00	1.91E+00	3.54E-04 +/- 2.88E-05
M 7	125.94	6.70E+00 +/- 4.33E-01	1.89E+00	4.02E-04 +/- 2.40E-05
m 8	129.96	4.97E+01 +/- 1.31E+00	1.88E+00	4.19E-04 +/- 2.77E-05
9	144.87	1.60E+00 +/- 7.66E-01	1.85E+00	4.65E-04 +/- 4.64E-05
10	171.99	2.25E+00 +/- 6.66E-01	1.79E+00	5.00E-04 +/- 6.22E-05
11	190.02	9.55E-01 +/- 5.78E-01	1.76E+00	4.99E-04 +/- 6.04E-05
12	196.20	2.41E+00 +/- 8.01E-01	1.75E+00	4.96E-04 +/- 5.85E-05
13	204.21	1.19E+00 +/- 7.20E-01	1.73E+00	4.91E-04 +/- 5.54E-05
14	208.68	1.70E+01 +/- 9.71E-01	1.72E+00	4.88E-04 +/- 5.34E-05
15	238.22	9.87E-01 +/- 4.69E-01	1.68E+00	4.57E-04 +/- 3.91E-05
16	256.14	2.17E+00 +/- 5.83E-01	1.65E+00	4.37E-04 +/- 3.12E-05
M 17	298.09	8.78E-01 +/- 2.08E-01	1.60E+00	3.89E-04 +/- 1.95E-05
m 18	300.81	2.33E+00 +/- 3.58E-01	1.60E+00	3.86E-04 +/- 1.91E-05
19	311.90	1.29E+01 +/- 5.50E-01	1.59E+00	3.74E-04 +/- 1.79E-05
M 20	321.66	1.47E+00 +/- 2.89E-01	1.58E+00	3.64E-04 +/- 1.74E-05
m 21	324.41	1.69E+00 +/- 3.13E-01	1.58E+00	3.61E-04 +/- 1.74E-05
M 22	333.40	1.26E+01 +/- 5.92E-01	1.57E+00	3.53E-04 +/- 1.73E-05
m 23	336.44	4.15E+00 +/- 2.93E-01	1.57E+00	3.50E-04 +/- 1.73E-05

24	345.66	1.03E+01	+/-	5.53E-01	1.56E+00	3.41E-04	+/-	1.75E-05
25	375.70	2.28E+01	+/-	8.47E-01	1.54E+00	3.16E-04	+/-	1.85E-05
M 26	380.82	5.60E+00	+/-	3.62E-01	1.54E+00	3.12E-04	+/-	1.87E-05
m 27	383.46	5.40E+00	+/-	3.43E-01	1.53E+00	3.10E-04	+/-	1.88E-05
28	393.58	1.13E+01	+/-	4.29E-01	1.53E+00	3.03E-04	+/-	1.90E-05
29	400.66	4.62E-01	+/-	2.16E-01	1.52E+00	2.98E-04	+/-	1.92E-05
30	413.70	3.06E+01	+/-	6.88E-01	1.52E+00	2.89E-04	+/-	1.94E-05
31	423.29	1.89E+00	+/-	2.26E-01	1.51E+00	2.83E-04	+/-	1.95E-05
32	452.15	3.66E+00	+/-	2.44E-01	1.49E+00	2.67E-04	+/-	1.94E-05
33	511.31	9.02E-01	+/-	1.43E-01	1.46E+00	2.39E-04	+/-	1.80E-05
34	619.36	2.25E-01	+/-	9.45E-02	1.41E+00	2.03E-04	+/-	1.38E-05
35	646.68	1.32E-01	+/-	7.47E-02	1.40E+00	1.96E-04	+/-	1.27E-05
M 36	659.88	2.48E-01	+/-	5.96E-02	1.40E+00	1.93E-04	+/-	1.22E-05
m 37	663.19	1.14E+00	+/-	1.59E-01	1.40E+00	1.92E-04	+/-	1.21E-05
38	722.01	6.04E-01	+/-	9.40E-02	1.38E+00	1.80E-04	+/-	1.01E-05
39	756.85	1.35E-01	+/-	4.93E-02	1.37E+00	1.73E-04	+/-	9.15E-06
40	964.13	3.02E-02	+/-	2.66E-02	1.32E+00	1.45E-04	+/-	6.45E-06
41	2236.00	1.00E+02	+/-	1.53E+00	1.21E+00	5.36E-05	+/-	3.03E-05

Segment: 14

Detector: DET01

(# 1)

Position: 14

Elapsed Live Time: 112.61 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS	
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.158 +/- 0.0068
SE-75	264.65	0.000 +/- 0.0000	0.238 +/- 0.0053
SE-75	279.53	0.000 +/- 0.0000	0.246 +/- 0.0060
SE-75	400.65	0.000 +/- 0.0000	0.297 +/- 0.0081

PEAK ANALYSIS RESULTS	
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.81	1.07E+00	+/- 2.15E-01	2.95E+00 3.30E-06 +/- 2.01E-05
2	50.24	1.27E+00	+/- 6.45E-01	2.27E+00 4.71E-05 +/- 1.15E-04
3	60.15	6.82E+01	+/- 1.34E+00	2.14E+00 9.58E-05 +/- 1.50E-04
4	99.85	1.05E+01	+/- 9.66E-01	1.94E+00 3.21E-04 +/- 7.38E-05
5	111.66	2.59E+00	+/- 6.44E-01	1.91E+00 3.69E-04 +/- 3.93E-05
6	129.29	7.97E+00	+/- 6.33E-01	1.87E+00 4.20E-04 +/- 2.62E-05
7	152.68	2.53E+00	+/- 4.59E-01	1.82E+00 4.55E-04 +/- 4.75E-05
8	180.36	7.82E-01	+/- 4.31E-01	1.77E+00 4.65E-04 +/- 5.40E-05
9	208.70	3.37E+00	+/- 4.81E-01	1.72E+00 4.54E-04 +/- 4.69E-05
M 10	333.36	2.08E+00	+/- 2.68E-01	1.58E+00 3.54E-04 +/- 1.64E-05
m 11	336.45	7.78E-01	+/- 1.48E-01	1.58E+00 3.51E-04 +/- 1.64E-05
12	345.67	1.36E+00	+/- 3.66E-01	1.57E+00 3.44E-04 +/- 1.65E-05

13	375.78	3.39E+00	+/-	3.70E-01	1.55E+00	3.22E-04	+/-	1.72E-05
M 14	380.91	1.04E+00	+/-	1.64E-01	1.54E+00	3.19E-04	+/-	1.74E-05
m 15	383.37	7.95E-01	+/-	1.34E-01	1.54E+00	3.17E-04	+/-	1.74E-05
16	393.62	1.70E+00	+/-	2.13E-01	1.54E+00	3.10E-04	+/-	1.77E-05
17	413.70	5.16E+00	+/-	2.44E-01	1.52E+00	2.98E-04	+/-	1.80E-05
18	423.06	2.50E-01	+/-	9.94E-02	1.52E+00	2.92E-04	+/-	1.81E-05
19	452.28	3.89E-01	+/-	9.36E-02	1.50E+00	2.76E-04	+/-	1.81E-05
20	510.83	5.86E-01	+/-	1.02E-01	1.47E+00	2.47E-04	+/-	1.69E-05
21	559.18	1.58E-01	+/-	6.76E-02	1.44E+00	2.28E-04	+/-	1.52E-05
22	662.42	1.68E-01	+/-	6.34E-02	1.40E+00	1.96E-04	+/-	1.14E-05
23	722.01	8.60E-02	+/-	5.22E-02	1.38E+00	1.81E-04	+/-	9.66E-06
24	2236.00	1.00E+02	+/-	1.51E+00	1.21E+00	7.64E-05	+/-	4.15E-05

Segment: 15

Detector: DET01 (# 1)

Position: 15

Elapsed Live Time: 113.64 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.256 +/- 0.0091
SE-75	264.65	0.000 +/- 0.0000	0.312 +/- 0.0068
SE-75	279.53	0.000 +/- 0.0000	0.327 +/- 0.0077
SE-75	400.65	0.000 +/- 0.0000	0.363 +/- 0.0095

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.94	1.08E+00	+/- 1.77E-01	2.34E+00 1.10E-09 +/- 7.03E-09
2	60.15	2.59E+01	+/- 7.63E-01	1.80E+00 1.23E-05 +/- 2.02E-05
3	100.36	5.97E+00	+/- 6.88E-01	1.66E+00 2.41E-04 +/- 5.59E-05
4	152.68	1.24E+00	+/- 3.32E-01	1.59E+00 4.90E-04 +/- 5.37E-05
5	375.90	2.57E-01	+/- 1.25E-01	1.44E+00 2.88E-04 +/- 1.59E-05
6	393.63	2.31E-01	+/- 8.59E-02	1.44E+00 2.75E-04 +/- 1.62E-05
7	413.70	2.95E-01	+/- 7.28E-02	1.43E+00 2.62E-04 +/- 1.65E-05
8	662.42	6.75E-02	+/- 5.10E-02	1.33E+00 1.75E-04 +/- 1.08E-05
9	2236.00	1.00E+02	+/- 1.50E+00	1.17E+00 3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01 (# 1)

Position: 16

Elapsed Live Time: 113.97 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.599 +/- 0.0169
SE-75	264.65	0.000 +/- 0.0000	0.655 +/- 0.0139
SE-75	279.53	0.000 +/- 0.0000	0.658 +/- 0.0147
SE-75	400.65	0.000 +/- 0.0000	0.670 +/- 0.0163

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.12	8.56E+00 +/- 4.85E-01	1.27E+00	5.61E-05 +/- 2.41E-05
2	100.45	1.01E+00 +/- 4.10E-01	1.22E+00	1.72E-04 +/- 2.06E-05
3	152.68	5.12E-01 +/- 3.17E-01	1.20E+00	2.51E-04 +/- 1.54E-05
4	662.42	7.42E-02 +/- 3.85E-02	1.12E+00	1.15E-04 +/- 7.04E-06
5	1334.08	7.59E-02 +/- 3.23E-02	1.08E+00	6.64E-05 +/- 4.06E-06
6	1408.01	4.85E-02 +/- 2.63E-02	1.08E+00	6.48E-05 +/- 4.76E-06
7	2236.00	1.00E+02 +/- 1.50E+00	1.07E+00	6.28E-05 +/- 1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: LL85501318
Peak Locate Performed on: 12-19-07 4:19:38 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.60	0.1426	31.97	22.81
2	100.67	0.1841	50.00	10.38
3	120.98	0.0392	60.15	283.39
4	199.53	0.0647	99.43	88.17
5	208.80	0.0759	104.06	68.23
6	224.03	0.0929	111.68	49.37
7	232.70	0.1149	116.01	18.26
8	260.62	0.0603	129.97	113.66
9	290.20	0.2084	144.77	11.38
10	307.51	0.1213	153.42	27.20
11	323.76	0.2074	161.55	8.08
12	344.69	0.2522	172.01	7.67
13	360.49	0.2290	179.91	7.68
14	380.40	0.2480	189.87	5.95
15	393.26	0.1958	196.30	11.36
16	418.01	0.0677	208.67	92.31
17	512.88	0.1721	256.11	14.52
18	596.21	0.2729	298.03	6.59
19	602.24	0.1395	300.78	21.95
20	625.78	0.0727	312.56	73.89
21	643.28	0.2609	321.52	6.64
22	649.12	0.2363	324.13	8.02
23	667.41	0.0844	333.40	53.37
24	673.87	0.1447	336.34	22.93
25	691.99	0.0829	345.66	59.80
26	752.06	0.0618	375.70	103.82
27	762.05	0.1107	380.85	36.67
28	767.88	0.1213	383.45	31.08
29	787.78	0.0821	393.56	55.35
30	799.18	0.2128	399.25	8.26
31	829.43	0.0606	414.38	95.33
32	847.17	0.1212	423.25	26.10
33	904.98	0.1064	452.16	35.05
34	1023.91	0.1847	511.62	8.16
35	1118.80	0.2428	559.07	6.54
36	1168.08	0.2784	583.70	5.15

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	1239.44	0.2356	619.38	5.63
38	1294.13	0.2385	646.73	6.83
39	1326.84	0.1374	663.08	19.45
40	1446.06	0.1609	722.69	13.43
41	2551.81	0.2325	1275.57	5.80
42	2924.38	0.2342	1461.86	5.75
43	4472.75	0.0266	2236.04	408.52

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: LL85501318
 Peak Analysis Performed on: 12-19-07 4:19:38 PM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Continuum Counts
	1	60-	70	64.60	31.97	3.45E+03	123.70	4.47E+03
	2	94-	104	100.67	50.00	4.01E+03	271.71	2.81E+04
	3	114-	127	120.98	60.15	1.46E+05	491.39	3.45E+04
	4	194-	206	199.53	99.43	3.03E+03	506.08	9.39E+04
	5	206-	215	208.80	104.06	1.68E+04	321.96	3.54E+04
	6	217-	227	224.03	111.68	5.58E+03	291.24	3.29E+04
	7	227-	239	232.70	116.01	6.15E+02	357.68	4.62E+04
F	8	257-	267	260.60	129.97	2.68E+04	306.55	1.20E+04
	9	283-	293	290.20	144.77	4.76E+02	212.82	1.87E+04
	10	303-	312	307.51	153.42	9.35E+02	203.41	1.78E+04
	11	316-	328	323.76	161.55	4.75E+02	238.18	2.13E+04
	12	337-	351	344.69	172.01	1.08E+03	250.69	2.14E+04
	13	356-	367	360.49	179.91	3.99E+02	201.22	1.60E+04
	14	376-	387	380.40	189.87	6.86E+02	196.34	1.51E+04
	15	391-	400	393.26	196.30	1.12E+03	165.45	1.16E+04
	16	413-	425	418.01	208.67	1.02E+04	244.50	1.82E+04
	17	510-	520	512.88	256.11	1.08E+03	131.43	6.74E+03
M	18	592-	609	596.73	298.03	5.33E+02	55.87	4.24E+03
m	19	592-	609	602.23	300.78	1.69E+03	100.72	3.63E+03
	20	620-	631	625.78	312.56	9.56E+03	151.44	5.34E+03
M	21	640-	656	643.71	321.52	7.47E+02	75.11	3.37E+03
m	22	640-	656	648.92	324.13	8.53E+02	79.00	4.40E+03
M	23	659-	679	667.47	333.40	6.54E+03	144.49	3.71E+03
m	24	659-	679	673.36	336.34	1.84E+03	71.32	4.25E+03
	25	687-	699	691.99	345.66	4.83E+03	138.62	5.32E+03
	26	746-	759	752.06	375.70	1.22E+04	198.14	8.93E+03
M	27	759-	775	762.37	380.85	3.03E+03	87.23	1.98E+03
m	28	759-	775	767.57	383.45	2.90E+03	81.55	1.60E+03
	29	784-	795	787.78	393.56	5.86E+03	103.43	1.78E+03
	30	795-	806	799.18	399.25	2.91E+02	60.86	1.36E+03
	31	821-	837	829.43	414.38	1.72E+04	147.29	1.43E+03
	32	844-	851	847.17	423.25	1.08E+03	49.40	6.49E+02
	33	897-	912	904.98	452.16	1.95E+03	65.83	7.94E+02
	34	1015-	1031	1023.91	511.62	8.52E+02	48.15	4.69E+02
	35	1110-	1126	1118.80	559.07	1.45E+02	34.86	3.42E+02
	36	1164-	1176	1168.08	583.70	8.31E+01	25.14	2.06E+02
	37	1234-	1247	1239.44	619.38	1.47E+02	30.39	2.80E+02

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	1290-	1298	1294.13	646.73	7.13E+01	21.42	1.81E+02	
39	1318-	1335	1326.84	663.08	8.39E+02	40.37	2.44E+02	
40	1441-	1451	1446.06	722.69	3.52E+02	27.39	1.67E+02	
41	2542-	2560	2551.81	1275.57	1.20E+02	20.14	8.37E+01	
42	2919-	2929	2924.38	1461.86	5.17E+01	11.17	2.93E+01	
43	4467-	4479	4472.75	2236.04	1.82E+05	426.72	1.53E+02	

M = First peak in a multiplet region
m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: LL85501318
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	1.000	2236.00*	100.00	7.859E+02	1.774E+02
Np-237	0.970	300.10*	6.63	2.615E+01	1.568E+00
		311.90*	38.60	2.591E+01	4.569E-01
Pu-238	0.962	152.68*	0.00	9.577E+04	2.091E+04
Pu-239	0.967	413.70*	0.00	1.469E+06	2.998E+04
Pu-239A	0.968	129.29*	0.01	4.674E+05	1.220E+04
Am-241	0.969	662.42*	0.00	3.825E+05	1.875E+04
Am-241D	0.967	722.01*	0.00	3.498E+05	2.744E+04

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-19-07 4:19:38 PM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS & Uncertainty
1	31.97	3.0493E+01	3.60
2	50.00	3.5406E+01	6.79
3	60.15	1.2941E+03	0.42
4	99.43	2.6827E+01	16.68
5	104.06	1.4855E+02	1.93
6	111.68	4.9285E+01	5.23
7	116.01	5.4383E+00	58.14
9	144.77	4.2076E+00	44.71
11	161.55	4.1956E+00	50.18
12	172.01	9.5641E+00	23.17
13	179.91	3.5280E+00	50.42
14	189.87	6.0651E+00	28.62
15	196.30	9.9361E+00	14.72
16	208.67	9.0387E+01	2.40
17	256.11	9.5600E+00	12.16
M 18	298.03	4.7098E+00	10.49
M 21	321.52	6.6070E+00	10.05
m 22	324.13	7.5439E+00	9.26
M 23	333.40	5.7788E+01	2.22
m 24	336.34	1.6250E+01	3.89
25	345.66	4.2678E+01	2.88
26	375.70	1.0822E+02	1.64
M 27	380.85	2.6798E+01	2.89
m 28	383.45	2.5639E+01	2.82
29	393.56	5.1838E+01	1.78
30	399.25	2.5690E+00	20.94
32	423.25	9.5557E+00	4.58
33	452.16	1.7209E+01	3.39
34	511.62	7.5283E+00	5.66
35	559.07	1.2816E+00	24.05
36	583.70	7.3459E-01	30.26
37	619.38	1.3009E+00	20.65
38	646.73	6.3055E-01	30.03
41	1275.57	1.0635E+00	16.74
42	1461.86	4.5731E-01	21.59

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	8.55E+02	+/-	1.26E+02	1.99E-02 +/- 2.94E-03
SE-75	< 3.11E-01	+/-	2.11E-02	< 7.24E-06 +/- 4.93E-07
EU-152x	< 3.06E-01	+/-	2.25E-02	< 7.12E-06 +/- 5.25E-07
U-233	1.99E+03	+/-	1.14E+03	4.63E-02 +/- 2.65E-02
U-235	< 4.28E-01	+/-	5.36E-02	< 9.97E-06 +/- 1.25E-06
Np-237	2.99E+01	+/-	8.97E-01	6.98E-04 +/- 2.09E-05
Pu-238	2.33E+05	+/-	1.38E+04	5.42E+00 +/- 3.21E-01
U-238	1.25E+00	+/-	5.62E-01	2.91E-05 +/- 1.31E-05
Pu-239	1.66E+06	+/-	6.46E+04	3.86E+01 +/- 1.51E+00
Pu-239A	6.86E+05	+/-	3.01E+04	1.60E+01 +/- 7.01E-01
Am-241	3.62E+05	+/-	2.34E+04	8.45E+00 +/- 5.45E-01
Am-241D	3.77E+05	+/-	2.88E+04	8.79E+00 +/- 6.71E-01
Pu-241	6.94E+05	+/-	1.30E+05	1.62E+01 +/- 3.03E+00

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)
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Nuclide	Mass (g)		
U-233	2.06E-01	+/-	1.18E-01
Np-237	4.25E-02	+/-	1.27E-03
Pu-238	1.36E-02	+/-	8.04E-04
U-238	3.73E+00	+/-	1.68E+00
Pu-239	2.67E+01	+/-	1.04E+00
Pu-239A	1.10E+01	+/-	4.84E-01
Am-241	1.06E-01	+/-	6.83E-03
Pu-241	6.71E-03	+/-	1.26E-03

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	7.86E+02 +/-	1.77E+02	1.83E-02 +/-	4.13E-03
SE-75	< 9.37E-01 +/-	8.39E-03	< 2.18E-05 +/-	1.95E-07
EU-152x	< 7.32E-01 +/-	1.31E-02	< 1.71E-05 +/-	3.05E-07
U-233	< 5.10E+04 +/-	1.08E+03	< 1.19E+00 +/-	2.52E-02
U-235	< 1.28E+00 +/-	2.87E-02	< 2.97E-05 +/-	6.68E-07
Np-237	2.59E+01 +/-	4.39E-01	6.04E-04 +/-	1.02E-05
Pu-238	9.58E+04 +/-	2.09E+04	2.23E+00 +/-	4.87E-01
U-238	< 2.00E+01 +/-	3.16E-01	< 4.65E-04 +/-	7.36E-06
Pu-239	1.47E+06 +/-	3.00E+04	3.43E+01 +/-	6.99E-01
Pu-239A	4.67E+05 +/-	1.22E+04	1.09E+01 +/-	2.84E-01
Am-241	3.82E+05 +/-	1.88E+04	8.92E+00 +/-	4.37E-01
Am-241D	3.50E+05 +/-	2.74E+04	8.15E+00 +/-	6.40E-01
Pu-241	< 5.12E+05 +/-	9.45E+03	< 1.19E+01 +/-	2.20E-01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)
Np-237	3.68E-02 +/- 6.23E-04
Pu-238	5.59E-03 +/- 1.22E-03
Pu-239	2.37E+01 +/- 4.83E-01
Pu-239A	7.53E+00 +/- 1.96E-01
Am-241	1.12E-01 +/- 5.48E-03

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.941 +/- 9.9881
Matrix Longitudinal Ratio: 0.782 +/- 0.1158

Source Vertical Ratio: 0.801 +/- 0.4335
Matrix Vertical Ratio: 0.846 +/- 0.0247

NUDS could not find the transmission peak in one radial segment.

Radioassay Data Sheet

Procedure ID & Rev: WCP-55 03/07/2002

Mon Dec 17 09:03:25 2007
Software Version: GWAS v2.3bGEN

Drum ID : S100-2508	Gross Weight (kg) : 54.0
Sequence Number : 2508	Fill Height (%) : 100.0
Assay Date : 12/17/07 08:02:13	Density (g/cc) : 0.11
	Net Weight (kg) : 22.20
Batch Number :	Waste Matrix Code :
Site ID :	TRUCON :

Errors at 1.00 Sigma		
TRU Alpha Activity Concentration:	4.22e-04	+/- 5.15e-05 Ci/g
Total Pu-239 Equiv Activity:	9.76e+00	+/- 1.15e+00 Ci
Total Pu-239 Fissile Gram Equiv:	1.04e+02	+/- 1.76e+01 g
Decay Heat:	2.99e-01	+/- 3.61e-02 W
Total Pu Mass:	1.10e+02	+/- 1.76e+01 g
TMU:	17.08%	
Waste Classification:	TRU	

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
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Pu-238	9.07e-03	6.15e+00
Pu-239	9.41e+01	4.82e-02
Pu-240	5.66e+00	7.94e-01
Pu-241	1.82e-01	6.31e-01
Pu-242	3.12e-02	1.00e+01
Am-241	4.98e-01	4.43e-01
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	0.00e+00	0.00e+00

Activity Errors

Isotope	1.00 Sigma Mass (g)	Alpha Activity/ Error/Isotope Mass (g)	1.00 Sigma Isotope (Ci)	Error/Isotope (Ci)	MDA (g)
Pu-238	9.93e-03	1.80e-03	1.70e-01	3.09e-02	3.06e-03
Pu-239	1.03e+02	1.76e+01	6.39e+00	1.09e+00	3.13e-01
Pu-240	6.20e+00	1.06e+00	1.41e+00	2.40e-01	0.00e+00
Pu-241	1.99e-01	3.40e-02	2.06e+01	3.52e+00	6.25e-03
Pu-242	3.41e-02	6.76e-03	1.34e-04	2.65e-05	0.00e+00
Am-241	4.10e-01	6.89e-02	1.40e+00	2.36e-01	5.99e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	1.35e-02	2.32e-03	9.53e-06	1.64e-06	1.30e-03
*U-235	<LLD	0.00e+00	0.00e+00	0.00e+00	3.34e-01
*U-238	<LLD	0.00e+00	0.00e+00	0.00e+00	1.81e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	3.23e+00
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Date

Reviewer Signature

Date

Software Version: GWAS v2.3bGEN
 Counter Number: SGS
 Data Review for Container: S100-2508
 Item Description Code: \Count Type: DEBRIS
 Sequence Number: 2508
 Assayed on: 12/17/07 08:02:13
 Report Generated: 12/17/07 09:03:10
 AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

REVIEW Pu-240 Wt Pct +2 Sigma error <5.75> less than <5.87> Review MGA Results
 Pu-240 Wt Pct error <0.79> is within limits
 Pu-238 Wt Pct error <6.15> is within limits
 REVIEW QFIT <1.32> > <1.20> Review MGA Results
 REVIEW MGAERR12: Calculations in MGAABS didn't converge: MGA results may be suspect

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.107> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <1.54e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <1.55> is acceptable in Segment 1
 Pulser value <0.99> is within range in Segment 1
 DEAD TIME percentage <1.91> is acceptable in Segment 2
 Pulser value <0.99> is within range in Segment 2
 DEAD TIME percentage <4.30> is acceptable in Segment 3
 Pulser value <0.99> is within range in Segment 3
 DEAD TIME percentage <14.70> is acceptable in Segment 4
 Pulser value <1.00> is within range in Segment 4
 DEAD TIME percentage <27.11> is acceptable in Segment 5
 Pulser value <0.97> out of range in Segment 5
 DEAD TIME percentage <26.93> is acceptable in Segment 6
 Pulser value <0.98> is within range in Segment 6
 DEAD TIME percentage <16.78> is acceptable in Segment 7
 Pulser value <0.99> is within range in Segment 7
 DEAD TIME percentage <6.02> is acceptable in Segment 8
 Pulser value <1.00> is within range in Segment 8
 DEAD TIME percentage <2.00> is acceptable in Segment 9
 Pulser value <1.00> is within range in Segment 9
 DEAD TIME percentage <1.49> is acceptable in Segment 10
 Pulser value <1.00> is within range in Segment 10
 DEAD TIME percentage <1.27> is acceptable in Segment 11
 Pulser value <0.99> is within range in Segment 11
 DEAD TIME percentage <1.08> is acceptable in Segment 12
 Pulser value <0.99> is within range in Segment 12
 DEAD TIME percentage <0.89> is acceptable in Segment 13
 Pulser value <0.99> is within range in Segment 13
 DEAD TIME percentage <0.77> is acceptable in Segment 14
 Pulser value <0.99> is within range in Segment 14
 DEAD TIME percentage <0.70> is acceptable in Segment 15
 Pulser value <0.98> is within range in Segment 15
 DEAD TIME percentage <0.70> is acceptable in Segment 16
 Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
 Transmission results are acceptable in Segment 2
 Transmission results are acceptable in Segment 3
 Transmission results are acceptable in Segment 4
 Transmission results are acceptable in Segment 5
 Transmission results are acceptable in Segment 6

Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

REVIEW Reduced chi squared fit value <6.40e+00> exceeds limit <3.00> for energy peak <129.94> in Segment 4
REVIEW Reduced chi squared fit value <1.93e+01> exceeds limit <3.00> for energy peak <129.91> in Segment 5
REVIEW Reduced chi squared fit value <7.00e+00> exceeds limit <3.00> for energy peak <129.94> in Segment 7

Section 7 - FGE MASS REVIEW

REVIEW FGE Mass <121.30> > <110.00>

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

Am-241 ratio <251.19> is above lower limit <200.00>
Np-237 ratio <7627.46> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <103.09> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Am-241D > Am-241A: Calculation not performed

Independent Reviewer: _____ Date: _____

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS
Data Review for Container: S100-2508
Item Description Code:
Sequence Number: 2508
Assayed on: 12/17/07 08:02:13
AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA Pu-240 Wt Pct +2 Sigma error is less than lower limit. QFIT is greater than upper limit. MGAERR12	
SECTION 4 - PULSER Pulser value out of range in Segment 5	
SECTION 6 - REDUCED CHI SQUARED FIT Chi square failure for 129.9 Kev in Segment 4 Chi square failure for 129.9 Kev in Segment 5 Chi square failure for 129.9 Kev in Segment 7	
SECTION 7 - FGE MASS FGE Mass is greater than upper limit.	
SECTION 9 - IDC COUNT TYPE IDC is not available.	

Technical Reviewer: _____ Date: _____

M G A R E P O R T

Report generated on:

12-17-07 8:59:30 AM

MGA version: MGA V9.5 CI

Spectrum ID: 11202508.CNF Sens : 30.0% LT: 47.2 Mins DT: 16.61
Measurement date: 12-17-07 Declared date: 12-17-07

Sample ID: S100-2508 Detector: Total counts: 1.317E+07

Pu g/cm² = 0.7765 Cd g/cm² = 1.7968 FWHM at 122 keV = 612 eV
QFIT = 1.32 FWHM at 208 keV = 782 eV
NQFIT = 1.02

Isotope	Relative to Pu-239	%*	%	Relative to Pu-241	%	Isotope analysis at				
						Meas. date	Decl. date	% weight	% Err	% weight
Pu-238	0.000096	6.2	6.1	0.0499	6.1	0.00907	6.15	0.00907	6.15	
Pu-239	1.000000	0.0	0.4	517.6938	0.6	94.12039	0.05	94.12039	0.05	
Pu-240	0.060110	0.8	0.8	31.1184	0.9	5.65755	0.79	5.65755	0.79	
Pu-241	0.001932	0.6	0.6	1.0000	0.0	0.18181	0.63	0.18181	0.63	
Pu-242	(New alg.)			0.1715 (10)		0.03117 (10)		0.03117 (10)		
Am-241	0.005287	0.5	0.3	2.7368	0.6	0.49758	0.44	0.49758	0.44	

Pu-240 effective (meas. date) = 5.733 +/- 0.86%

Am-241 separated about 27.278 +/- 0.146 years ago

Am/Pu-241 weight ratio = 2.73684 +/- 0.64%

Messages :

Lead x-rays detected.
Calculations in MGAABS didn't converge : results may be suspect.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Report for: S100-2508 12-17-07 8:59:44 AM Page 1

Gamma Waste Assay

Sample Information

File Name:	C:\WAS\DATA\2600\11102508.S11		
Sample ID:	S100-2508 Count Sequence Number: 2508		
Assay Start:	12-17-07 8:02:14 AM		
Description 1:			
Description 2:			
Location:			
Comment:			
Waste Type:			
Weight:	Gross: 54000.0 g	Net: 22200.0 g	
Density:	0.107 g /ml		
Container Type:	55 Gal Galv		
Container:	Volume: 208000. ml	Full:	100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: Daily 100g Drum Check
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps

Geometric Correction Factor(SWCONTGCF): 0.760

Date of efficiency calibration approval: 8-27-2003 2:05:34 PM

Mu Factors response file: Lucite

Transmission Calib. Time: 12-11-2007 9:07:38 AM 22209

Reviewed by: _____ Date: _____

Segment Results

Segment: 1

Detector: DET01 (# 1)

Position: 1

Elapsed Live Time: 113.22 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.349 +/- 0.0108
SE-75	264.65	0.000 +/- 0.0000	0.435 +/- 0.0075
SE-75	279.53	0.000 +/- 0.0000	0.443 +/- 0.0084
SE-75	400.65	0.000 +/- 0.0000	0.492 +/- 0.0106

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
M 1	31.71	1.00E+00 +/- 1.59E-01	1.99E+00	3.72E-10 +/- 2.69E-09
m 2	33.38	5.80E-01 +/- 1.36E-01	1.93E+00	1.11E-09 +/- 7.33E-09
3	49.13	2.93E+00 +/- 4.36E-01	1.67E+00	6.70E-07 +/- 2.03E-06
4	59.92	1.00E+01 +/- 5.91E-01	1.59E+00	6.09E-06 +/- 1.14E-05
5	121.11	9.44E-01 +/- 6.32E-01	1.47E+00	2.66E-04 +/- 1.81E-05
6	152.68	7.98E-01 +/- 5.39E-01	1.44E+00	3.67E-04 +/- 4.47E-05
7	1112.12	6.10E-02 +/- 2.31E-02	1.17E+00	8.48E-05 +/- 4.39E-06
8	2236.00	1.00E+02 +/- 1.50E+00	1.12E+00	3.40E-05 +/- 2.15E-05

Segment: 2

Detector: DET01 (# 1)

Position: 2

Elapsed Live Time: 112.80 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.407 +/- 0.0122
SE-75	264.65	0.000 +/- 0.0000	0.524 +/- 0.0089
SE-75	279.53	0.000 +/- 0.0000	0.529 +/- 0.0099
SE-75	400.65	0.000 +/- 0.0000	0.565 +/- 0.0120

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.09	1.64E+00 +/-	2.94E-01	1.81E+00 1.89E-05 +/- 1.17E-04
2	49.14	3.06E+00 +/-	5.94E-01	1.56E+00 7.94E-05 +/- 2.11E-04
3	60.01	1.50E+01 +/-	7.15E-01	1.50E+00 1.32E-04 +/- 2.14E-04
4	95.46	2.46E+00 +/-	8.86E-01	1.42E+00 2.95E-04 +/- 8.95E-05
5	400.66	1.44E-01 +/-	1.11E-01	1.23E+00 2.97E-04 +/- 1.83E-05
6	500.11	6.97E-02 +/-	4.52E-02	1.21E+00 2.44E-04 +/- 1.76E-05
7	662.42	2.68E-02 +/-	1.99E-02	1.18E+00 1.86E-04 +/- 1.15E-05
8	2236.00	1.00E+02 +/-	1.50E+00	1.10E+00 9.73E-05 +/- 5.41E-05

Segment: 3

Detector: DET01 (# 1)

Position: 3

Elapsed Live Time: 110.06 sec

Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.347 +/- 0.0118
SE-75	264.65	0.000 +/- 0.0000	0.469 +/- 0.0082
SE-75	279.53	0.000 +/- 0.0000	0.472 +/- 0.0092
SE-75	400.65	0.000 +/- 0.0000	0.519 +/- 0.0114

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.97	2.96E+00 +/-	3.59E-01	1.99E+00 3.40E-06 +/- 3.26E-06
2	49.46	2.96E+00 +/-	9.08E-01	1.67E+00 3.70E-05 +/- 1.83E-05
3	60.14	7.65E+01 +/-	1.51E+00	1.60E+00 8.06E-05 +/- 2.79E-05
4	99.35	3.03E+01 +/-	1.48E+00	1.50E+00 2.97E-04 +/- 3.03E-05
5	111.69	3.04E+00 +/-	1.18E+00	1.48E+00 3.54E-04 +/- 2.60E-05
M 6	115.47	3.78E+00 +/-	6.58E-01	1.48E+00 3.70E-04 +/- 2.49E-05
m 7	117.31	5.68E+00 +/-	7.56E-01	1.47E+00 3.77E-04 +/- 2.44E-05
8	125.84	1.84E+00 +/-	6.47E-01	1.46E+00 4.07E-04 +/- 2.27E-05
9	129.29	1.92E+01 +/-	1.02E+00	1.46E+00 4.18E-04 +/- 2.23E-05
10	144.91	2.10E+00 +/-	7.31E-01	1.44E+00 4.56E-04 +/- 2.23E-05
11	148.57	3.00E+00 +/-	6.98E-01	1.44E+00 4.63E-04 +/- 2.25E-05
12	171.86	2.44E+00 +/-	8.95E-01	1.41E+00 4.90E-04 +/- 2.48E-05
13	208.67	1.51E+01 +/-	8.58E-01	1.37E+00 4.92E-04 +/- 2.59E-05

14	255.97	8.20E-01	+/-	3.48E-01	1.32E+00	4.58E-04	+/-	2.28E-05
15	268.27	1.90E+00	+/-	7.25E-01	1.31E+00	4.47E-04	+/-	2.17E-05
16	311.90	1.10E+00	+/-	4.45E-01	1.30E+00	4.04E-04	+/-	1.79E-05
M 17	321.44	8.81E-01	+/-	2.83E-01	1.30E+00	3.95E-04	+/-	1.72E-05
m 18	324.52	9.44E-01	+/-	2.81E-01	1.29E+00	3.92E-04	+/-	1.69E-05
M 19	333.38	7.13E+00	+/-	4.83E-01	1.29E+00	3.84E-04	+/-	1.63E-05
m 20	336.52	2.53E+00	+/-	2.55E-01	1.29E+00	3.81E-04	+/-	1.61E-05
M 21	342.14	6.83E-01	+/-	1.65E-01	1.29E+00	3.76E-04	+/-	1.58E-05
m 22	345.68	6.05E+00	+/-	4.58E-01	1.29E+00	3.73E-04	+/-	1.56E-05
23	369.14	8.43E-01	+/-	4.51E-01	1.28E+00	3.52E-04	+/-	1.43E-05
24	375.70	1.19E+01	+/-	6.16E-01	1.28E+00	3.46E-04	+/-	1.41E-05
M 25	380.90	2.71E+00	+/-	2.69E-01	1.28E+00	3.42E-04	+/-	1.38E-05
m 26	383.47	2.54E+00	+/-	2.53E-01	1.28E+00	3.40E-04	+/-	1.37E-05
27	393.57	5.56E+00	+/-	3.48E-01	1.27E+00	3.31E-04	+/-	1.34E-05
28	413.70	1.64E+01	+/-	4.66E-01	1.27E+00	3.16E-04	+/-	1.28E-05
M 29	423.17	1.26E+00	+/-	1.83E-01	1.26E+00	3.09E-04	+/-	1.26E-05
m 30	426.82	2.20E-01	+/-	6.95E-02	1.26E+00	3.06E-04	+/-	1.25E-05
31	443.98	1.43E-01	+/-	1.00E-01	1.26E+00	2.95E-04	+/-	1.21E-05
32	452.17	1.72E+00	+/-	1.83E-01	1.25E+00	2.89E-04	+/-	1.20E-05
33	512.57	2.76E-01	+/-	1.11E-01	1.24E+00	2.54E-04	+/-	1.12E-05
34	662.42	6.81E-01	+/-	1.07E-01	1.21E+00	1.95E-04	+/-	9.62E-06
35	722.01	5.59E-01	+/-	8.45E-02	1.20E+00	1.79E-04	+/-	8.87E-06
36	1085.91	2.71E-02	+/-	1.57E-02	1.16E+00	1.28E-04	+/-	4.75E-06
37	1174.49	7.30E-02	+/-	2.85E-02	1.15E+00	1.23E-04	+/-	4.63E-06
38	1333.91	7.37E-02	+/-	3.37E-02	1.14E+00	1.17E-04	+/-	5.99E-06
39	2236.00	1.00E+02	+/-	1.52E+00	1.11E+00	1.32E-04	+/-	3.24E-05

Segment: 4

Detector: DET01

(# 1)

Position: 4

Elapsed Live Time: 98.09 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.308 +/- 0.0136
SE-75	264.65	0.000 +/- 0.0000	0.482 +/- 0.0089
SE-75	279.53	0.000 +/- 0.0000	0.494 +/- 0.0102
SE-75	400.65	0.000 +/- 0.0000	0.538 +/- 0.0126

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.99	1.73E+01 +/- 8.79E-01	2.12E+00	1.15E-07 +/- 7.07E-07
2	50.26	9.33E+00 +/- 1.68E+00	1.75E+00	1.09E-05 +/- 2.71E-05
3	60.14	4.49E+02 +/- 6.16E+00	1.67E+00	3.61E-05 +/- 5.75E-05
4	99.34	1.77E+02 +/- 3.75E+00	1.56E+00	2.64E-04 +/- 6.35E-05

5	111.67	3.70E+01	+/-	2.16E+00	1.54E+00	3.35E-04	+/-	3.63E-05
6	116.22	3.28E+01	+/-	2.75E+00	1.54E+00	3.57E-04	+/-	2.84E-05
M 7	125.93	2.37E+01	+/-	8.46E-01	1.52E+00	3.99E-04	+/-	2.37E-05
m 8	129.94	1.63E+02	+/-	2.95E+00	1.52E+00	4.14E-04	+/-	2.68E-05
9	148.57	1.88E+01	+/-	1.46E+00	1.49E+00	4.63E-04	+/-	4.66E-05
10	172.05	8.31E+00	+/-	1.25E+00	1.44E+00	4.88E-04	+/-	5.77E-05
11	179.71	3.33E+00	+/-	1.14E+00	1.43E+00	4.90E-04	+/-	5.79E-05
12	190.01	4.54E+00	+/-	9.67E-01	1.41E+00	4.89E-04	+/-	5.65E-05
13	196.34	8.32E+00	+/-	1.34E+00	1.40E+00	4.87E-04	+/-	5.48E-05
14	204.18	2.83E+01	+/-	1.39E+00	1.39E+00	4.83E-04	+/-	5.22E-05
15	208.65	8.32E+01	+/-	2.24E+00	1.38E+00	4.80E-04	+/-	5.05E-05
16	256.01	5.62E+00	+/-	8.37E-01	1.31E+00	4.36E-04	+/-	3.06E-05
M 17	264.77	1.44E+00	+/-	3.43E-01	1.30E+00	4.27E-04	+/-	2.75E-05
m 18	268.13	5.41E+00	+/-	6.41E-01	1.30E+00	4.23E-04	+/-	2.64E-05
19	298.03	3.77E+00	+/-	9.38E-01	1.29E+00	3.92E-04	+/-	1.92E-05
20	311.90	7.29E+00	+/-	9.02E-01	1.28E+00	3.77E-04	+/-	1.75E-05
M 21	321.70	5.34E+00	+/-	6.34E-01	1.28E+00	3.68E-04	+/-	1.69E-05
m 22	324.07	5.96E+00	+/-	6.24E-01	1.28E+00	3.66E-04	+/-	1.68E-05
M 23	333.37	4.40E+01	+/-	1.20E+00	1.27E+00	3.57E-04	+/-	1.65E-05
m 24	336.31	1.64E+01	+/-	6.17E-01	1.27E+00	3.54E-04	+/-	1.65E-05
M 25	342.16	4.36E+00	+/-	3.39E-01	1.27E+00	3.49E-04	+/-	1.65E-05
m 26	345.65	4.02E+01	+/-	1.17E+00	1.27E+00	3.46E-04	+/-	1.65E-05
27	362.13	1.06E+00	+/-	5.65E-01	1.26E+00	3.32E-04	+/-	1.68E-05
28	375.69	7.47E+01	+/-	1.76E+00	1.26E+00	3.21E-04	+/-	1.71E-05
M 29	380.85	1.73E+01	+/-	6.75E-01	1.26E+00	3.17E-04	+/-	1.72E-05
m 30	383.38	1.69E+01	+/-	6.48E-01	1.26E+00	3.15E-04	+/-	1.73E-05
31	393.54	3.84E+01	+/-	9.18E-01	1.26E+00	3.08E-04	+/-	1.75E-05
32	413.70	9.81E+01	+/-	1.62E+00	1.25E+00	2.94E-04	+/-	1.78E-05
33	423.21	5.90E+00	+/-	4.67E-01	1.25E+00	2.87E-04	+/-	1.79E-05
34	452.11	1.16E+01	+/-	4.57E-01	1.24E+00	2.70E-04	+/-	1.78E-05
35	619.70	9.44E-01	+/-	1.53E-01	1.20E+00	2.02E-04	+/-	1.27E-05
36	646.54	5.35E-01	+/-	1.49E-01	1.20E+00	1.94E-04	+/-	1.18E-05
37	653.56	5.45E-01	+/-	1.43E-01	1.20E+00	1.93E-04	+/-	1.16E-05
38	662.42	5.08E+00	+/-	2.68E-01	1.20E+00	1.90E-04	+/-	1.13E-05
39	689.19	3.30E-01	+/-	1.06E-01	1.19E+00	1.84E-04	+/-	1.05E-05
40	704.63	1.79E-01	+/-	6.75E-02	1.19E+00	1.80E-04	+/-	1.00E-05
M 41	718.47	1.59E-01	+/-	4.95E-02	1.19E+00	1.78E-04	+/-	9.68E-06
m 42	722.61	2.09E+00	+/-	2.27E-01	1.19E+00	1.77E-04	+/-	9.58E-06

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Corrected Peak Count Rate (Cps)		
43	756.68	1.95E-01 +/- 6.90E-02	1.18E+00	1.70E-04 +/- 8.82E-06		
44	769.96	5.92E-01 +/- 1.07E-01	1.18E+00	1.68E-04 +/- 8.56E-06		
45	867.39	7.11E-02 +/- 2.69E-02	1.17E+00	1.52E-04 +/- 7.25E-06		
46	964.13	5.27E-02 +/- 3.66E-02	1.16E+00	1.40E-04 +/- 6.55E-06		
47	1408.01	4.06E-02 +/- 2.03E-02	1.13E+00	1.06E-04 +/- 7.05E-06		
48	2236.00	1.00E+02 +/- 1.60E+00	1.10E+00	7.00E-05 +/- 3.84E-05		

Segment: 5

Detector: DET01

(# 1)

Position: 5

Elapsed Live Time: 83.82 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Minimum transmission used.

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.005 +/- 0.0025
SE-75	264.65	0.000 +/- 0.0000	0.228 +/- 0.0050
SE-75	279.53	0.000 +/- 0.0000	0.239 +/- 0.0064
SE-75	400.65	0.000 +/- 0.0000	0.373 +/- 0.0103

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.09	3.16E+01 +/- 1.27E+00	4.10E+00	2.82E-07 +/- 1.85E-06
2	50.06	1.23E+01 +/- 2.03E+00	4.10E+00	1.60E-05 +/- 4.32E-05
3	60.12	1.07E+03 +/- 1.45E+01	4.10E+00	4.77E-05 +/- 8.21E-05
4	99.30	3.62E+02 +/- 6.57E+00	4.10E+00	2.77E-04 +/- 7.12E-05
5	111.64	7.54E+01 +/- 3.25E+00	4.10E+00	3.41E-04 +/- 3.83E-05
6	116.31	4.61E+01 +/- 4.30E+00	4.10E+00	3.61E-04 +/- 2.89E-05
M 7	125.89	4.68E+01 +/- 1.32E+00	4.10E+00	3.97E-04 +/- 2.36E-05
m 8	129.91	3.33E+02 +/- 5.42E+00	4.10E+00	4.09E-04 +/- 2.71E-05
M 9	141.96	2.60E+00 +/- 6.48E-01	3.42E+00	4.37E-04 +/- 4.17E-05
m 10	144.77	2.14E+01 +/- 9.69E-01	3.24E+00	4.42E-04 +/- 4.47E-05
m 11	146.93	1.92E+01 +/- 9.24E-01	3.13E+00	4.46E-04 +/- 4.69E-05
m 12	149.16	4.87E+01 +/- 1.59E+00	3.03E+00	4.49E-04 +/- 4.89E-05
13	172.01	1.59E+01 +/- 1.97E+00	2.45E+00	4.67E-04 +/- 5.93E-05
14	179.70	7.38E+00 +/- 1.57E+00	2.33E+00	4.67E-04 +/- 5.93E-05
15	189.87	8.59E+00 +/- 1.36E+00	2.20E+00	4.65E-04 +/- 5.77E-05
16	196.25	1.43E+01 +/- 1.66E+00	2.13E+00	4.63E-04 +/- 5.58E-05

17	208.63	2.00E+02	+/-	3.73E+00	2.02E+00	4.56E-04	+/-	5.12E-05
18	226.22	2.77E+00	+/-	1.30E+00	1.88E+00	4.42E-04	+/-	4.34E-05
19	255.95	1.37E+01	+/-	1.25E+00	1.71E+00	4.15E-04	+/-	3.05E-05
M 20	264.64	4.02E+00	+/-	5.43E-01	1.66E+00	4.06E-04	+/-	2.74E-05
m 21	268.17	9.79E+00	+/-	8.81E-01	1.66E+00	4.03E-04	+/-	2.62E-05
M 22	298.05	7.31E+00	+/-	7.83E-01	1.60E+00	3.74E-04	+/-	1.90E-05
m 23	301.12	1.90E+00	+/-	4.01E-01	1.59E+00	3.72E-04	+/-	1.85E-05
24	311.90	1.11E+01	+/-	9.64E-01	1.57E+00	3.62E-04	+/-	1.74E-05
M 25	321.59	8.16E+00	+/-	7.30E-01	1.55E+00	3.53E-04	+/-	1.68E-05
m 26	324.08	1.14E+01	+/-	8.40E-01	1.55E+00	3.51E-04	+/-	1.68E-05
M 27	333.34	8.97E+01	+/-	1.96E+00	1.53E+00	3.43E-04	+/-	1.67E-05
m 28	336.27	3.54E+01	+/-	9.71E-01	1.52E+00	3.41E-04	+/-	1.67E-05
M 29	342.08	4.39E+00	+/-	4.81E-01	1.51E+00	3.36E-04	+/-	1.68E-05
m 30	345.62	7.37E+01	+/-	1.83E+00	1.51E+00	3.34E-04	+/-	1.69E-05
31	362.52	2.33E+00	+/-	7.49E-01	1.48E+00	3.21E-04	+/-	1.74E-05
32	375.66	1.44E+02	+/-	2.93E+00	1.46E+00	3.11E-04	+/-	1.79E-05
M 33	380.80	3.48E+01	+/-	1.06E+00	1.45E+00	3.07E-04	+/-	1.81E-05
m 34	383.38	3.47E+01	+/-	1.03E+00	1.45E+00	3.06E-04	+/-	1.82E-05
35	393.51	7.15E+01	+/-	1.50E+00	1.43E+00	2.99E-04	+/-	1.85E-05
36	413.70	1.91E+02	+/-	2.97E+00	1.41E+00	2.86E-04	+/-	1.90E-05
37	423.17	1.03E+01	+/-	6.38E-01	1.41E+00	2.81E-04	+/-	1.91E-05
38	452.06	2.35E+01	+/-	7.15E-01	1.40E+00	2.65E-04	+/-	1.91E-05
39	598.25	4.06E-01	+/-	1.47E-01	1.34E+00	2.07E-04	+/-	1.46E-05
40	619.49	1.87E+00	+/-	2.51E-01	1.33E+00	2.01E-04	+/-	1.37E-05
41	633.88	2.24E-01	+/-	1.32E-01	1.33E+00	1.97E-04	+/-	1.32E-05
42	646.52	7.88E-01	+/-	2.22E-01	1.33E+00	1.94E-04	+/-	1.27E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)		
43	653.23	7.52E-01 +/- 2.77E-01	1.32E+00	1.92E-04 +/- 1.24E-05		
M 44	659.34	7.00E-01 +/- 1.19E-01	1.32E+00	1.91E-04 +/- 1.22E-05		
m 45	663.03	9.69E+00 +/- 5.45E-01	1.32E+00	1.90E-04 +/- 1.20E-05		
46	689.20	7.96E-01 +/- 1.69E-01	1.31E+00	1.84E-04 +/- 1.11E-05		
47	704.16	3.67E-01 +/- 1.26E-01	1.31E+00	1.80E-04 +/- 1.06E-05		
48	722.01	5.04E+00 +/- 2.72E-01	1.30E+00	1.77E-04 +/- 1.01E-05		
49	756.88	4.86E-01 +/- 1.18E-01	1.30E+00	1.70E-04 +/- 9.13E-06		
50	770.01	1.49E+00 +/- 1.51E-01	1.29E+00	1.67E-04 +/- 8.82E-06		
51	1408.01	6.97E-02 +/- 2.85E-02	1.21E+00	1.00E-04 +/- 6.78E-06		
52	2236.00	1.00E+02 +/- 1.70E+00	1.17E+00	5.76E-05 +/- 3.29E-05		

Segment: 6

Detector: DET01

(# 1)

Position: 6

Elapsed Live Time: 84.03 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Minimum transmission used.

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.005 +/- 0.0025
SE-75	264.65	0.000 +/- 0.0000	0.203 +/- 0.0049
SE-75	279.53	0.000 +/- 0.0000	0.220 +/- 0.0060
SE-75	400.65	0.000 +/- 0.0000	0.348 +/- 0.0097

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.06	3.21E+01 +/- 1.28E+00	4.10E+00	4.72E-07 +/- 2.97E-06
2	50.21	1.18E+01 +/- 2.02E+00	4.10E+00	2.22E-05 +/- 5.68E-05
3	60.12	1.00E+03 +/- 1.37E+01	4.10E+00	6.06E-05 +/- 9.92E-05
4	78.11	7.05E+00 +/- 2.05E+00	4.10E+00	1.70E-04 +/- 1.24E-04
5	99.29	3.56E+02 +/- 6.52E+00	4.10E+00	3.06E-04 +/- 7.52E-05
6	111.64	7.10E+01 +/- 3.25E+00	4.10E+00	3.68E-04 +/- 4.01E-05
7	116.23	6.20E+01 +/- 4.14E+00	4.10E+00	3.88E-04 +/- 3.04E-05
8	129.29	2.85E+02 +/- 4.65E+00	4.10E+00	4.31E-04 +/- 2.73E-05
9	144.70	3.63E+00 +/- 1.82E+00	3.31E+00	4.64E-04 +/- 4.48E-05
10	148.57	3.46E+01 +/- 2.14E+00	3.13E+00	4.69E-04 +/- 4.84E-05
11	172.06	1.60E+01 +/- 1.97E+00	2.52E+00	4.85E-04 +/- 5.88E-05
12	179.76	6.61E+00 +/- 1.25E+00	2.41E+00	4.85E-04 +/- 5.88E-05

13	189.83	1.20E+01	+/-	1.37E+00	2.28E+00	4.82E-04	+/-	5.72E-05
14	196.23	1.24E+01	+/-	1.47E+00	2.21E+00	4.80E-04	+/-	5.54E-05
15	208.63	2.08E+02	+/-	3.83E+00	2.09E+00	4.72E-04	+/-	5.09E-05
16	225.82	2.15E+00	+/-	1.24E+00	1.95E+00	4.59E-04	+/-	4.36E-05
17	238.25	1.97E+00	+/-	9.94E-01	1.87E+00	4.49E-04	+/-	3.81E-05
18	244.70	4.16E+00	+/-	1.39E+00	1.83E+00	4.43E-04	+/-	3.54E-05
19	255.98	1.24E+01	+/-	1.13E+00	1.77E+00	4.33E-04	+/-	3.09E-05
M 20	264.70	4.03E+00	+/-	5.39E-01	1.73E+00	4.25E-04	+/-	2.79E-05
m 21	268.10	1.01E+01	+/-	8.91E-01	1.72E+00	4.22E-04	+/-	2.67E-05
M 22	298.05	6.31E+00	+/-	7.41E-01	1.64E+00	3.94E-04	+/-	1.97E-05
m 23	300.55	1.12E+00	+/-	3.51E-01	1.63E+00	3.92E-04	+/-	1.93E-05
24	311.90	9.27E+00	+/-	9.69E-01	1.61E+00	3.82E-04	+/-	1.81E-05
M 25	321.64	7.72E+00	+/-	7.38E-01	1.59E+00	3.74E-04	+/-	1.75E-05
m 26	324.12	1.10E+01	+/-	8.56E-01	1.58E+00	3.72E-04	+/-	1.74E-05
M 27	333.35	8.82E+01	+/-	1.95E+00	1.57E+00	3.65E-04	+/-	1.73E-05
m 28	336.30	3.48E+01	+/-	9.69E-01	1.56E+00	3.63E-04	+/-	1.73E-05
29	345.64	6.81E+01	+/-	1.46E+00	1.54E+00	3.55E-04	+/-	1.74E-05
30	368.82	2.92E+01	+/-	1.26E+00	1.50E+00	3.38E-04	+/-	1.82E-05
31	375.66	1.36E+02	+/-	2.91E+00	1.49E+00	3.34E-04	+/-	1.84E-05
M 32	380.79	3.61E+01	+/-	1.09E+00	1.48E+00	3.30E-04	+/-	1.86E-05
m 33	383.40	3.45E+01	+/-	1.03E+00	1.48E+00	3.28E-04	+/-	1.87E-05
34	393.51	7.19E+01	+/-	1.52E+00	1.47E+00	3.22E-04	+/-	1.90E-05
35	413.70	1.93E+02	+/-	2.99E+00	1.45E+00	3.09E-04	+/-	1.95E-05
36	423.22	1.01E+01	+/-	7.54E-01	1.44E+00	3.04E-04	+/-	1.96E-05
37	452.04	2.37E+01	+/-	7.15E-01	1.43E+00	2.88E-04	+/-	1.97E-05
38	482.13	4.92E-01	+/-	2.57E-01	1.41E+00	2.73E-04	+/-	1.93E-05
39	619.53	1.85E+00	+/-	2.22E-01	1.36E+00	2.22E-04	+/-	1.43E-05
40	646.50	7.17E-01	+/-	1.91E-01	1.35E+00	2.15E-04	+/-	1.32E-05
41	653.17	7.48E-01	+/-	2.97E-01	1.35E+00	2.13E-04	+/-	1.30E-05
M 42	659.59	6.15E-01	+/-	1.19E-01	1.35E+00	2.11E-04	+/-	1.27E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)	
m 43	663.04	9.34E+00 +/- 5.39E-01	1.35E+00	2.10E-04 +/- 1.26E-05	
44	689.31	8.56E-01 +/- 1.82E-01	1.34E+00	2.03E-04 +/- 1.16E-05	
45	697.20	1.28E-01 +/- 8.59E-02	1.34E+00	2.01E-04 +/- 1.13E-05	
46	704.30	5.31E-01 +/- 1.31E-01	1.33E+00	2.00E-04 +/- 1.11E-05	
M 47	718.27	3.26E-01 +/- 7.78E-02	1.33E+00	1.96E-04 +/- 1.06E-05	
m 48	722.67	4.88E+00 +/- 3.77E-01	1.33E+00	1.95E-04 +/- 1.05E-05	
49	756.67	4.57E-01 +/- 9.74E-02	1.32E+00	1.88E-04 +/- 9.53E-06	
50	769.98	1.45E+00 +/- 1.58E-01	1.32E+00	1.85E-04 +/- 9.20E-06	
51	2236.00	1.00E+02 +/- 1.70E+00	1.18E+00	4.34E-05 +/- 2.42E-05	
52	2295.34	9.07E-02 +/- 6.38E-02	1.18E+00	4.07E-05 +/- 2.49E-05	

Segment: 7

Detector: DET01

(# 1)

Position: 7

Elapsed Live Time: 95.70 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.058 +/- 0.0089
SE-75	264.65	0.000 +/- 0.0000	0.290 +/- 0.0057
SE-75	279.53	0.000 +/- 0.0000	0.306 +/- 0.0069
SE-75	400.65	0.000 +/- 0.0000	0.415 +/- 0.0102

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.08	1.85E+01 +/- 9.17E-01	4.10E+00	5.04E-09 +/- 2.88E-08
2	49.94	6.57E+00 +/- 1.45E+00	3.17E+00	2.81E-06 +/- 6.64E-06
3	60.14	6.60E+02 +/- 8.84E+00	2.94E+00	1.59E-05 +/- 2.38E-05
4	99.32	2.10E+02 +/- 4.25E+00	2.59E+00	2.43E-04 +/- 5.53E-05
5	111.67	4.58E+01 +/- 2.33E+00	2.53E+00	3.35E-04 +/- 3.49E-05
6	116.28	1.79E+01 +/- 3.09E+00	2.51E+00	3.66E-04 +/- 2.82E-05
M 7	125.91	2.87E+01 +/- 9.37E-01	2.48E+00	4.24E-04 +/- 2.46E-05
m 8	129.94	1.92E+02 +/- 3.35E+00	2.47E+00	4.45E-04 +/- 2.77E-05
9	148.57	2.18E+01 +/- 1.35E+00	2.26E+00	5.16E-04 +/- 4.85E-05
10	165.19	2.55E+00 +/- 9.45E-01	2.08E+00	5.48E-04 +/- 5.92E-05
11	172.06	1.06E+01 +/- 1.56E+00	2.02E+00	5.55E-04 +/- 6.09E-05
12	179.85	3.91E+00 +/- 1.34E+00	1.96E+00	5.58E-04 +/- 6.12E-05
13	189.89	4.50E+00 +/- 1.17E+00	1.89E+00	5.58E-04 +/- 5.97E-05
14	196.36	7.16E+00 +/- 9.38E-01	1.85E+00	5.56E-04 +/- 5.79E-05
15	208.65	1.11E+02 +/- 2.38E+00	1.78E+00	5.47E-04 +/- 5.32E-05

16	244.70	2.03E+00	+/-	1.07E+00	1.62E+00	5.05E-04	+/-	3.65E-05
17	255.98	6.98E+00	+/-	8.21E-01	1.57E+00	4.90E-04	+/-	3.18E-05
M 18	264.58	2.14E+00	+/-	3.82E-01	1.54E+00	4.78E-04	+/-	2.86E-05
m 19	268.15	5.91E+00	+/-	6.49E-01	1.54E+00	4.74E-04	+/-	2.74E-05
M 20	298.06	4.50E+00	+/-	5.89E-01	1.49E+00	4.34E-04	+/-	2.02E-05
m 21	300.86	1.36E+00	+/-	3.30E-01	1.49E+00	4.30E-04	+/-	1.98E-05
22	311.90	3.95E+00	+/-	7.76E-01	1.47E+00	4.17E-04	+/-	1.86E-05
M 23	321.63	4.42E+00	+/-	5.50E-01	1.46E+00	4.05E-04	+/-	1.79E-05
m 24	324.09	6.04E+00	+/-	6.22E-01	1.46E+00	4.02E-04	+/-	1.78E-05
M 25	333.36	5.00E+01	+/-	1.29E+00	1.44E+00	3.91E-04	+/-	1.76E-05
m 26	336.31	1.85E+01	+/-	6.40E-01	1.44E+00	3.88E-04	+/-	1.76E-05
M 27	342.13	2.30E+00	+/-	3.43E-01	1.43E+00	3.82E-04	+/-	1.76E-05
m 28	345.66	4.12E+01	+/-	1.18E+00	1.43E+00	3.78E-04	+/-	1.76E-05
29	368.86	2.06E+00	+/-	1.07E+00	1.40E+00	3.55E-04	+/-	1.81E-05
30	375.67	7.87E+01	+/-	1.87E+00	1.40E+00	3.49E-04	+/-	1.82E-05
M 31	380.84	1.99E+01	+/-	7.36E-01	1.39E+00	3.44E-04	+/-	1.83E-05
m 32	383.44	1.85E+01	+/-	6.84E-01	1.39E+00	3.42E-04	+/-	1.84E-05
33	393.56	3.94E+01	+/-	9.55E-01	1.38E+00	3.33E-04	+/-	1.86E-05
34	413.70	1.04E+02	+/-	1.72E+00	1.37E+00	3.17E-04	+/-	1.88E-05
35	423.17	6.64E+00	+/-	5.12E-01	1.36E+00	3.10E-04	+/-	1.88E-05
36	443.98	4.29E-01	+/-	2.42E-01	1.35E+00	2.95E-04	+/-	1.87E-05
37	452.09	1.27E+01	+/-	4.70E-01	1.35E+00	2.90E-04	+/-	1.86E-05
38	619.71	9.06E-01	+/-	1.62E-01	1.30E+00	2.15E-04	+/-	1.32E-05
39	640.99	3.44E-01	+/-	1.41E-01	1.29E+00	2.09E-04	+/-	1.25E-05
40	646.51	5.45E-01	+/-	1.38E-01	1.29E+00	2.08E-04	+/-	1.23E-05
41	653.14	2.64E-01	+/-	2.03E-01	1.29E+00	2.06E-04	+/-	1.20E-05
M 42	659.55	3.89E-01	+/-	8.37E-02	1.28E+00	2.04E-04	+/-	1.18E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
m 43	663.06	5.39E+00 +/- 3.82E-01	1.28E+00	2.03E-04 +/- 1.17E-05
44	689.36	4.56E-01 +/- 1.00E-01	1.28E+00	1.96E-04 +/- 1.09E-05
45	722.01	2.90E+00 +/- 1.97E-01	1.27E+00	1.89E-04 +/- 9.99E-06
46	756.61	3.30E-01 +/- 7.45E-02	1.26E+00	1.82E-04 +/- 9.18E-06
47	770.11	8.61E-01 +/- 1.14E-01	1.26E+00	1.79E-04 +/- 8.90E-06
48	1001.03	3.37E-02 +/- 2.40E-02	1.22E+00	1.45E-04 +/- 6.33E-06
49	2236.00	1.00E+02 +/- 1.62E+00	1.15E+00	5.07E-05 +/- 2.69E-05
50	2295.18	1.50E-01 +/- 4.50E-02	1.15E+00	4.77E-05 +/- 2.77E-05

Segment: 8 Detector: DET01 (# 1) Position: 8

Elapsed Live Time: 108.08 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS	
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.328 +/- 0.0119
SE-75	264.65	0.000 +/- 0.0000	0.507 +/- 0.0089
SE-75	279.53	0.000 +/- 0.0000	0.516 +/- 0.0100
SE-75	400.65	0.000 +/- 0.0000	0.564 +/- 0.0123

PEAK ANALYSIS RESULTS	
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.94	6.31E+00 +/- 4.80E-01	2.05E+00	7.51E-06 +/- 7.34E-06
2	49.94	4.09E+00 +/- 1.16E+00	1.70E+00	5.90E-05 +/- 2.92E-05
3	60.15	1.99E+02 +/- 2.95E+00	1.63E+00	1.10E-04 +/- 3.84E-05
4	68.06	1.68E+00 +/- 7.11E-01	1.60E+00	1.55E-04 +/- 4.18E-05
5	99.35	6.34E+01 +/- 1.97E+00	1.52E+00	3.24E-04 +/- 3.31E-05
6	111.69	1.28E+01 +/- 1.31E+00	1.51E+00	3.75E-04 +/- 2.72E-05
7	116.16	5.89E+00 +/- 1.61E+00	1.50E+00	3.90E-04 +/- 2.56E-05
M 8	125.96	9.37E+00 +/- 5.22E-01	1.49E+00	4.19E-04 +/- 2.31E-05
m 9	129.98	5.64E+01 +/- 1.43E+00	1.49E+00	4.29E-04 +/- 2.26E-05
10	148.57	5.98E+00 +/- 7.96E-01	1.46E+00	4.62E-04 +/- 2.28E-05
11	161.32	1.67E+00 +/- 8.80E-01	1.43E+00	4.74E-04 +/- 2.41E-05
12	171.94	2.81E+00 +/- 9.22E-01	1.41E+00	4.80E-04 +/- 2.51E-05
13	196.59	2.19E+00 +/- 7.09E-01	1.37E+00	4.79E-04 +/- 2.62E-05
14	208.67	2.80E+01 +/- 1.09E+00	1.35E+00	4.74E-04 +/- 2.60E-05
15	256.25	2.07E+00 +/- 5.68E-01	1.29E+00	4.39E-04 +/- 2.28E-05
16	268.17	9.47E-01 +/- 6.74E-01	1.28E+00	4.28E-04 +/- 2.17E-05
17	311.90	1.87E+00 +/- 4.55E-01	1.26E+00	3.88E-04 +/- 1.78E-05

M 18	322.04	1.36E+00	+/-	3.05E-01	1.26E+00	3.79E-04	+/-	1.70E-05
m 19	324.37	1.78E+00	+/-	3.53E-01	1.26E+00	3.77E-04	+/-	1.69E-05
M 20	333.42	1.29E+01	+/-	6.16E-01	1.25E+00	3.69E-04	+/-	1.62E-05
m 21	336.41	4.65E+00	+/-	3.16E-01	1.25E+00	3.67E-04	+/-	1.60E-05
22	345.66	1.03E+01	+/-	4.72E-01	1.25E+00	3.59E-04	+/-	1.54E-05
23	368.92	1.33E+00	+/-	5.11E-01	1.24E+00	3.40E-04	+/-	1.42E-05
24	375.72	2.07E+01	+/-	8.16E-01	1.24E+00	3.34E-04	+/-	1.38E-05
M 25	380.83	4.95E+00	+/-	3.52E-01	1.24E+00	3.30E-04	+/-	1.36E-05
m 26	383.46	4.64E+00	+/-	3.26E-01	1.24E+00	3.28E-04	+/-	1.35E-05
27	393.56	1.12E+01	+/-	4.51E-01	1.24E+00	3.21E-04	+/-	1.31E-05
28	413.70	2.76E+01	+/-	6.46E-01	1.23E+00	3.06E-04	+/-	1.25E-05
M 29	423.31	2.21E+00	+/-	2.49E-01	1.23E+00	3.00E-04	+/-	1.22E-05
m 30	427.16	5.18E-01	+/-	9.64E-02	1.23E+00	2.97E-04	+/-	1.21E-05
31	443.98	3.05E-01	+/-	1.31E-01	1.22E+00	2.87E-04	+/-	1.18E-05
32	452.20	3.15E+00	+/-	2.46E-01	1.22E+00	2.82E-04	+/-	1.16E-05
33	559.40	1.26E-01	+/-	6.32E-02	1.20E+00	2.28E-04	+/-	1.04E-05
34	598.81	1.71E-01	+/-	7.05E-02	1.19E+00	2.13E-04	+/-	1.01E-05
M 35	659.32	1.60E-01	+/-	4.94E-02	1.18E+00	1.94E-04	+/-	9.44E-06
m 36	663.03	1.62E+00	+/-	1.91E-01	1.18E+00	1.93E-04	+/-	9.40E-06
37	722.01	7.32E-01	+/-	1.00E-01	1.17E+00	1.78E-04	+/-	8.71E-06
38	2236.00	1.00E+02	+/-	1.54E+00	1.10E+00	1.19E-04	+/-	2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 112.70 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.340 +/- 0.0101
SE-75	264.65	0.000 +/- 0.0000	0.499 +/- 0.0086
SE-75	279.53	0.000 +/- 0.0000	0.510 +/- 0.0096
SE-75	400.65	0.000 +/- 0.0000	0.569 +/- 0.0120

PEAK ANALYSIS RESULTS				
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.99	2.36E+00 +/- 3.00E-01	2.01E+00	6.03E-09 +/- 3.63E-08
2	49.77	1.61E+00 +/- 6.30E-01	1.68E+00	2.91E-06 +/- 7.27E-06
3	60.12	2.91E+01 +/- 8.68E-01	1.61E+00	1.64E-05 +/- 2.57E-05
4	67.86	1.50E+00 +/- 5.33E-01	1.58E+00	3.93E-05 +/- 4.37E-05
5	99.24	3.46E+00 +/- 9.18E-01	1.51E+00	2.35E-04 +/- 5.60E-05
6	129.29	1.12E+00 +/- 5.28E-01	1.47E+00	4.21E-04 +/- 2.66E-05
7	148.57	1.33E+00 +/- 6.69E-01	1.44E+00	4.88E-04 +/- 4.79E-05
8	208.64	8.98E-01 +/- 3.06E-01	1.35E+00	5.11E-04 +/- 5.15E-05
9	375.93	4.04E-01 +/- 1.83E-01	1.24E+00	3.18E-04 +/- 1.78E-05

10	413.70	3.86E-01	+/-	1.07E-01	1.23E+00	2.88E-04	+/-	1.83E-05
11	722.01	3.42E-02	+/-	2.30E-02	1.17E+00	1.72E-04	+/-	9.44E-06
12	867.39	5.33E-02	+/-	2.18E-02	1.15E+00	1.49E-04	+/-	7.00E-06
13	1408.01	8.88E-03	+/-	2.00E-02	1.11E+00	1.05E-04	+/-	6.90E-06
14	2236.00	1.00E+02	+/-	1.51E+00	1.09E+00	6.12E-05	+/-	3.31E-05

Segment: 10

Detector: DET01 (# 1)

Position: 10

Elapsed Live Time: 113.29 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.309 +/- 0.0098
SE-75	264.65	0.000 +/- 0.0000	0.469 +/- 0.0081
SE-75	279.53	0.000 +/- 0.0000	0.477 +/- 0.0090
SE-75	400.65	0.000 +/- 0.0000	0.549 +/- 0.0116

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.81	2.13E+00 +/- 2.47E-01	2.08E+00	1.85E-05 +/- 1.77E-05
2	60.04	1.26E+01 +/- 6.16E-01	1.67E+00	1.37E-04 +/- 4.88E-05
3	413.70	9.27E-02 +/- 6.82E-02	1.24E+00	3.15E-04 +/- 1.29E-05
4	512.16	9.86E-02 +/- 6.22E-02	1.22E+00	2.62E-04 +/- 1.16E-05
5	964.13	4.43E-02 +/- 1.98E-02	1.15E+00	1.45E-04 +/- 6.11E-06
6	1001.03	1.77E-02 +/- 1.25E-02	1.15E+00	1.41E-04 +/- 5.67E-06
7	2236.00	1.00E+02 +/- 1.51E+00	1.10E+00	9.04E-05 +/- 2.29E-05

Segment: 11

Detector: DET01 (# 1)

Position: 11

Elapsed Live Time: 113.54 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.216 +/- 0.0075
SE-75	264.65	0.000 +/- 0.0000	0.326 +/- 0.0057
SE-75	279.53	0.000 +/- 0.0000	0.342 +/- 0.0067
SE-75	400.65	0.000 +/- 0.0000	0.376 +/- 0.0085

PEAK ANALYSIS RESULTS				
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.78	5.82E-01 +/- 1.53E-01	2.55E+00	1.36E-03 +/- 8.91E-03
2	49.86	2.50E+00 +/- 4.28E-01	2.02E+00	6.02E-04 +/- 1.61E-03
3	59.99	6.56E+00 +/- 4.76E-01	1.92E+00	5.04E-04 +/- 8.55E-04
4	67.76	1.50E+00 +/- 4.01E-01	1.87E+00	4.65E-04 +/- 5.58E-04
5	104.00	6.93E-01 +/- 3.85E-01	1.75E+00	4.06E-04 +/- 7.68E-05
6	121.11	1.05E+00 +/- 4.54E-01	1.71E+00	4.01E-04 +/- 2.46E-05
7	148.57	9.89E-01 +/- 4.99E-01	1.67E+00	3.97E-04 +/- 4.23E-05
8	662.42	4.68E-02 +/- 2.26E-02	1.32E+00	2.15E-04 +/- 1.30E-05
9	722.01	4.48E-02 +/- 2.85E-02	1.30E+00	1.97E-04 +/- 1.08E-05
10	964.13	3.49E-02 +/- 1.74E-02	1.25E+00	1.45E-04 +/- 6.48E-06
11	1112.12	2.72E-02 +/- 2.07E-02	1.23E+00	1.23E-04 +/- 5.40E-06
12	2236.00	1.00E+02 +/- 1.50E+00	1.17E+00	5.79E-05 +/- 3.30E-05

Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 113.76 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.087 +/- 0.0051
SE-75	264.65	0.000 +/- 0.0000	0.142 +/- 0.0027
SE-75	279.53	0.000 +/- 0.0000	0.153 +/- 0.0035
SE-75	400.65	0.000 +/- 0.0000	0.182 +/- 0.0049

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.88	8.95E-01 +/- 1.70E-01	3.74E+00	2.15E-09 +/- 1.34E-08
2	59.52	3.38E+00 +/- 3.86E-01	2.61E+00	1.18E-05 +/- 1.95E-05
3	311.90	2.80E-01 +/- 1.96E-01	1.85E+00	3.88E-04 +/- 1.81E-05
4	2236.00	1.00E+02 +/- 1.50E+00	1.30E+00	6.48E-05 +/- 3.54E-05

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 113.98 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.325 +/- 0.0099
SE-75	264.65	0.000 +/- 0.0000	0.409 +/- 0.0070
SE-75	279.53	0.000 +/- 0.0000	0.411 +/- 0.0078
SE-75	400.65	0.000 +/- 0.0000	0.453 +/- 0.0098

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.86	1.59E-01 +/- 1.09E-01	2.06E+00	1.58E-08 +/- 1.04E-07
2	49.28	1.24E+00 +/- 3.27E-01	1.72E+00	4.32E-06 +/- 1.20E-05
3	60.08	1.86E+00 +/- 2.64E-01	1.64E+00	2.27E-05 +/- 3.85E-05
4	185.71	4.37E-01 +/- 3.22E-01	1.44E+00	5.01E-04 +/- 6.14E-05
5	207.96	5.07E-01 +/- 1.80E-01	1.42E+00	4.88E-04 +/- 5.37E-05
6	413.70	3.82E-02 +/- 2.55E-02	1.33E+00	2.89E-04 +/- 1.94E-05
7	1085.91	1.73E-02 +/- 1.22E-02	1.19E+00	1.32E-04 +/- 5.78E-06
8	1112.12	3.14E-02 +/- 2.04E-02	1.19E+00	1.30E-04 +/- 5.64E-06
9	2236.00	1.00E+02 +/- 1.50E+00	1.13E+00	5.36E-05 +/- 3.03E-05

Segment: 14

Detector: DET01 (# 1)

Position: 14

Elapsed Live Time: 114.11 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.793 +/- 0.0191
SE-75	264.65	0.000 +/- 0.0000	0.846 +/- 0.0143
SE-75	279.53	0.000 +/- 0.0000	0.864 +/- 0.0156
SE-75	400.65	0.000 +/- 0.0000	0.879 +/- 0.0176

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.78	3.66E-01 +/- 1.18E-01	1.18E+00	3.28E-06 +/- 2.00E-05
2	60.19	3.76E-01 +/- 1.78E-01	1.12E+00	9.60E-05 +/- 1.50E-04
3	129.29	6.15E-01 +/- 3.34E-01	1.09E+00	4.20E-04 +/- 2.62E-05
4	400.66	7.68E-02 +/- 5.40E-02	1.05E+00	3.06E-04 +/- 1.78E-05
5	964.13	2.38E-02 +/- 2.08E-02	1.03E+00	1.41E-04 +/- 6.33E-06
6	1112.12	4.03E-02 +/- 2.46E-02	1.03E+00	1.26E-04 +/- 5.44E-06
7	2236.00	1.00E+02 +/- 1.50E+00	1.02E+00	7.64E-05 +/- 4.15E-05

Segment: 15

Detector: DET01 (# 1)

Position: 15

Elapsed Live Time: 114.20 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.809 +/- 0.0195
SE-75	264.65	0.000 +/- 0.0000	0.877 +/- 0.0149
SE-75	279.53	0.000 +/- 0.0000	0.893 +/- 0.0162
SE-75	400.65	0.000 +/- 0.0000	0.891 +/- 0.0179

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.51	1.43E+00 +/- 2.65E-01	1.12E+00	1.58E-06 +/- 4.20E-06
2	60.21	6.90E-01 +/- 2.35E-01	1.11E+00	1.24E-05 +/- 2.03E-05
3	138.06	4.05E-01 +/- 3.03E-01	1.08E+00	4.54E-04 +/- 3.80E-05
4	400.66	9.56E-02 +/- 3.88E-02	1.04E+00	2.70E-04 +/- 1.63E-05

5	722.01	8.62E-03	+/-	8.62E-03	1.03E+00	1.64E-04	+/-	9.17E-06
6	2236.00	1.00E+02	+/-	1.49E+00	1.02E+00	3.18E-05	+/-	1.80E-05

Segment: 16 Detector: DET01 (# 1) Position: 16

Elapsed Live Time: 114.20 sec Elapsed Real Time: 115.00 sec

TRANSMISSION		RESULTS
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.716 +/- 0.0170
SE-75	264.65	0.000 +/- 0.0000	0.815 +/- 0.0138
SE-75	279.53	0.000 +/- 0.0000	0.828 +/- 0.0149
SE-75	400.65	0.000 +/- 0.0000	0.837 +/- 0.0168

PEAK	ANALYSIS	RESULTS
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.00	2.72E-01 +/- 1.87E-01	1.17E+00	5.57E-05 +/- 2.41E-05
2	413.70	4.27E-02 +/- 3.18E-02	1.07E+00	1.79E-04 +/- 8.85E-06
3	722.01	6.04E-02 +/- 2.28E-02	1.05E+00	1.06E-04 +/- 6.56E-06
4	1001.03	8.63E-03 +/- 8.63E-03	1.04E+00	7.97E-05 +/- 4.05E-06
5	1408.01	4.31E-02 +/- 1.93E-02	1.04E+00	6.48E-05 +/- 4.76E-06
6	2236.00	1.00E+02 +/- 1.49E+00	1.03E+00	6.28E-05 +/- 1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: S100-2508
Peak Locate Performed on: 12-17-07 8:59:31 AM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.75	0.1097	32.04	35.28
2	100.62	0.1574	49.98	13.77
3	120.93	0.0321	60.13	423.88
4	152.03	0.2858	75.68	6.77
5	199.29	0.0419	99.31	235.35
6	223.99	0.0605	111.66	117.00
7	233.17	0.0689	116.25	46.71
8	260.49	0.0421	129.91	225.15
9	290.10	0.1345	144.72	28.85
10	299.12	0.0851	149.22	64.18
11	344.67	0.1568	172.00	18.38
12	360.12	0.1712	179.72	15.47
13	380.46	0.1530	189.90	16.40
14	393.26	0.1273	196.30	26.71
15	417.96	0.0434	208.64	221.67
16	452.65	0.2432	225.99	6.68
17	477.45	0.2685	238.39	6.42
18	512.68	0.1198	256.01	28.39
19	529.86	0.2100	264.62	10.53
20	537.01	0.1281	268.15	26.46
21	596.79	0.1450	298.06	21.04
22	625.56	0.1077	312.45	32.37
23	643.37	0.1862	321.63	13.45
24	649.18	0.1613	324.12	15.22
25	667.25	0.0601	333.36	110.96
26	673.76	0.0971	336.31	49.10
27	684.44	0.1463	342.11	23.06
28	691.96	0.0598	345.64	114.70
29	725.30	0.2370	362.32	6.83
30	752.00	0.0455	375.67	195.00
31	761.99	0.0803	380.82	69.46
32	767.80	0.0881	383.40	58.98
33	787.72	0.0596	393.53	102.84
34	829.33	0.0445	414.33	181.40
35	847.06	0.0894	423.20	50.11
36	893.72	0.2154	446.53	8.32

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	904.83	0.0764	452.08	64.70
38	964.95	0.2376	482.14	7.13
39	1197.12	0.2390	598.23	5.34
40	1239.87	0.1573	619.60	14.45
41	1293.70	0.1616	646.51	13.72
42	1318.81	0.2638	659.46	8.00
43	1326.69	0.0935	663.04	39.87
44	1379.25	0.1973	689.29	9.25
45	1409.31	0.2316	704.32	6.63
46	1445.91	0.1103	722.62	28.32
47	1513.94	0.2082	756.63	8.24
48	1540.64	0.1862	769.98	9.94
49	2667.99	0.2370	1333.66	5.49
50	4472.70	0.0270	2236.01	398.63
51	4591.09	0.2485	2295.21	5.10

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: S100-2508
 Peak Analysis Performed on: 12-17-07 8:59:31 AM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area Uncert.	Continuum Counts
1	60-	71	64.75	32.04	1.14E+04	217.39		1.31E+04
2	94-	104	100.62	49.98	6.06E+03	367.87		5.26E+04
3	114-	127	120.93	60.13	3.24E+05	713.83		6.78E+04
4	145-	158	152.03	75.68	2.45E+03	421.05		6.27E+04
5	194-	203	199.29	99.31	1.10E+05	779.43		2.21E+05
6	217-	227	223.99	111.66	2.21E+04	547.23		1.13E+05
7	227-	240	233.17	116.25	1.13E+04	728.87		1.77E+05
8	256-	267	260.49	129.91	8.49E+04	504.42		6.60E+04
9	283-	293	290.10	144.72	7.49E+02	338.93		4.73E+04
10	293-	306	299.12	149.22	9.84E+03	424.74		6.14E+04
11	338-	351	344.67	172.00	5.47E+03	373.60		4.86E+04
12	355-	367	360.12	179.72	2.15E+03	341.50		4.34E+04
13	373-	387	380.46	189.90	3.30E+03	374.41		4.75E+04
14	387-	400	393.26	196.30	4.08E+03	347.11		4.22E+04
15	413-	425	417.96	208.64	6.06E+04	453.48		5.30E+04
16	449-	459	452.65	225.99	4.79E+02	225.35		2.11E+04
17	474-	480	477.45	238.39	4.53E+02	152.04		1.20E+04
18	510-	520	512.68	256.01	3.67E+03	204.78		1.59E+04
M	19	526-	544	529.91	264.62	1.15E+03	96.69	1.07E+04
m	20	526-	544	536.97	268.15	3.05E+03	158.66	1.17E+04
21	591-	604	596.79	298.06	2.11E+03	213.22		1.57E+04
22	622-	630	625.56	312.45	3.62E+03	155.35		9.54E+03
M	23	639-	656	643.94	321.63	2.73E+03	137.50	1.09E+04
m	24	639-	656	648.90	324.12	3.55E+03	150.48	1.24E+04
M	25	662-	679	667.38	333.36	2.70E+04	261.00	8.75E+03
m	26	662-	679	673.29	336.31	1.06E+04	142.72	8.58E+03
M	27	679-	699	684.90	342.11	1.10E+03	79.47	9.40E+03
m	28	679-	699	691.95	345.64	2.24E+04	246.78	7.25E+03
29	722-	729	725.30	362.32	4.21E+02	101.16		4.87E+03
30	746-	759	752.00	375.67	4.28E+04	364.96		2.95E+04
M	31	759-	775	762.30	380.82	1.06E+04	158.21	5.44E+03
m	32	759-	775	767.47	383.40	1.02E+04	149.59	4.61E+03
33	780-	795	787.72	393.53	2.17E+04	192.14		5.06E+03
34	821-	837	829.33	414.33	5.72E+04	263.45		3.92E+03
35	839-	852	847.06	423.20	3.24E+03	118.23		3.84E+03
36	885-	898	893.72	446.53	1.10E+02	69.40		1.70E+03
37	898-	912	904.83	452.08	6.85E+03	108.79		1.74E+03

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	960-	969	964.95	482.14	8.54E+01	40.43	6.86E+02	
39	1188-	1202	1197.12	598.23	1.46E+02	35.93	3.98E+02	
40	1231-	1248	1239.87	619.60	5.32E+02	45.72	4.79E+02	
41	1290-	1298	1293.70	646.51	3.24E+02	30.47	2.80E+02	
M 42	1315-	1334	1319.59	659.46	2.18E+02	20.45	2.75E+02	
m 43	1315-	1334	1326.74	663.04	2.94E+03	84.61	2.46E+02	
44	1375-	1387	1379.25	689.29	2.35E+02	28.61	2.19E+02	
45	1403-	1413	1409.31	704.32	1.24E+02	22.04	1.52E+02	
46	1440-	1454	1445.91	722.62	1.42E+03	46.66	2.67E+02	
47	1510-	1518	1513.94	756.63	1.38E+02	17.56	7.94E+01	
48	1532-	1549	1540.64	769.98	4.50E+02	29.86	1.36E+02	
49	2658-	2673	2667.99	1333.66	8.01E+01	12.56	2.59E+01	
50	4466-	4482	4472.70	2236.01	1.73E+05	417.75	2.98E+02	
51	4587-	4601	4591.09	2295.21	3.88E+01	10.05	2.02E+01	

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: S100-2508
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	1.000	2236.00*	100.00	7.331E+02	2.001E+02
Np-237	0.745	300.10	6.63		
		311.90*	38.60	8.486E+00	3.732E-01
Pu-239	0.972	413.70*	0.00	4.290E+06	8.523E+04
Pu-239A	0.973	129.29*	0.01	1.240E+06	3.489E+04
Am-241	0.973	662.42*	0.00	1.219E+06	3.753E+04
Am-241D	0.974	722.01*	0.00	1.287E+06	4.470E+04
Pu-241	0.970	148.57*	0.00	4.324E+06	2.126E+05

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-17-07 8:59:31 AM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	32.04	1.0582E+02	1.92
2	49.98	5.6105E+01	6.08
3	60.13	2.9979E+03	0.34
4	75.68	2.2681E+01	17.19
5	99.31	1.0163E+03	0.76
6	111.66	2.0462E+02	2.49
7	116.25	1.0448E+02	6.46
9	144.72	6.9308E+00	45.27
11	172.00	5.0642E+01	6.83
12	179.72	1.9922E+01	15.87
13	189.90	3.0521E+01	11.36
14	196.30	3.7783E+01	8.51
15	208.64	5.6108E+02	0.79
16	225.99	4.4374E+00	47.02
17	238.39	4.1950E+00	33.56
18	256.01	3.4009E+01	5.58
M 19	264.62	1.0678E+01	8.39
m 20	268.15	2.8226E+01	5.21
21	298.06	1.9543E+01	10.10
M 23	321.63	2.5228E+01	5.05
m 24	324.12	3.2840E+01	4.25
M 25	333.36	2.4976E+02	1.00
m 26	336.31	9.8245E+01	1.37
M 27	342.11	1.0207E+01	7.21
m 28	345.64	2.0771E+02	1.13
29	362.32	3.9013E+00	24.01
30	375.67	3.9659E+02	0.89
M 31	380.82	9.7759E+01	1.52
m 32	383.40	9.4477E+01	1.49
33	393.53	2.0135E+02	0.92
35	423.20	3.0041E+01	3.65
36	446.53	1.0219E+00	62.88
37	452.08	6.3423E+01	1.61
38	482.14	7.9031E-01	47.36
39	598.23	1.3547E+00	24.55
40	619.60	4.9260E+00	8.60
41	646.51	3.0002E+00	9.40
M 42	659.46	2.0218E+00	9.37
44	689.29	2.1802E+00	12.15
45	704.32	1.1441E+00	17.84
47	756.63	1.2735E+00	12.77
48	769.98	4.1646E+00	6.64
49	1333.66	7.4153E-01	15.68
51	2295.21	3.5949E-01	25.89

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Report for: S100-2508

12-17-07 9:00:15 AM

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Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	8.14E+02 +/-	1.20E+02	3.67E-02 +/-	5.41E-03
SE-75	< 5.59E-01 +/-	3.77E-02	< 2.52E-05 +/-	1.70E-06
EU-152x	< 2.63E-01 +/-	1.94E-02	< 1.18E-05 +/-	8.73E-07
U-233	< 3.11E+04 +/-	2.51E+03	< 1.40E+00 +/-	1.13E-01
U-235	5.93E-02 +/-	4.43E-02	2.67E-06 +/-	2.00E-06
Np-237	9.53E+00 +/-	5.34E-01	4.29E-04 +/-	2.41E-05
Pu-238	9.02E+03 +/-	6.19E+03	4.06E-01 +/-	2.79E-01
U-238	1.75E+00 +/-	8.18E-01	7.88E-05 +/-	3.69E-05
Pu-239	5.26E+06 +/-	1.79E+05	2.37E+02 +/-	8.05E+00
Pu-239A	3.42E+06 +/-	1.32E+05	1.54E+02 +/-	5.96E+00
Am-241	1.40E+06 +/-	5.88E+04	6.33E+01 +/-	2.65E+00
Am-241D	1.57E+06 +/-	6.91E+04	7.06E+01 +/-	3.11E+00
Pu-241	1.09E+07 +/-	7.04E+05	4.90E+02 +/-	3.17E+01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

U-235	2.75E-02	+/-	2.05E-02
Np-237	1.35E-02	+/-	7.59E-04
Pu-238	5.27E-04	+/-	3.61E-04
U-238	5.21E+00	+/-	2.44E+00
Pu-239	8.47E+01	+/-	2.88E+00
Pu-239A	5.51E+01	+/-	2.13E+00
Am-241	4.10E-01	+/-	1.72E-02
Pu-241	1.05E-01	+/-	6.81E-03

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	7.33E+02 +/- 2.00E+02		3.30E-02 +/- 9.01E-03	
SE-75	< 1.21E+00 +/- 1.35E-02	<	5.46E-05 +/- 6.08E-07	
EU-152x	< 6.41E-01 +/- 1.34E-02	<	2.89E-05 +/- 6.05E-07	
U-233	< 7.02E+04 +/- 1.77E+03	<	3.16E+00 +/- 7.99E-02	
U-235	< 1.66E+00 +/- 4.32E-02	<	7.49E-05 +/- 1.94E-06	
Np-237	8.49E+00 +/- 3.73E-01		3.82E-04 +/- 1.68E-05	
Pu-238	< 1.23E+05 +/- 2.89E+03	<	5.53E+00 +/- 1.30E-01	
U-238	< 1.44E+01 +/- 2.37E-01	<	6.49E-04 +/- 1.07E-05	
Pu-239	4.29E+06 +/- 8.52E+04		1.93E+02 +/- 3.84E+00	
Pu-239A	1.24E+06 +/- 3.49E+04		5.58E+01 +/- 1.57E+00	
Am-241	1.22E+06 +/- 3.75E+04		5.49E+01 +/- 1.69E+00	
Am-241D	1.29E+06 +/- 4.47E+04		5.80E+01 +/- 2.01E+00	
Pu-241	4.32E+06 +/- 2.13E+05		1.95E+02 +/- 9.57E+00	

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)
Np-237	1.20E-02 +/- 5.30E-04
Pu-239	6.91E+01 +/- 1.37E+00
Pu-239A	2.00E+01 +/- 5.62E-01
Am-241	3.56E-01 +/- 1.10E-02
Pu-241	4.18E-02 +/- 2.06E-03

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.927 +/- 9.1041
Matrix Longitudinal Ratio: 0.749 +/- 0.0503

Source Vertical Ratio: 0.904 +/- 0.4559
Matrix Vertical Ratio: 0.853 +/- 0.0204

NUDS could not find the transmission peak in one radial segment.

□

Drum ID	: LL85001765	Gross Weight (kg)	: 68.6
Sequence Number	: 2506	Fill Height (%)	: 100.0
Assay Date	: 12/13/07 15:34:56	Density (g/cc)	: 0.22
Batch Number	:	Net Weight (kg)	: 44.80
Site ID	:	Waste Matrix Code	:
		TRUCON	:

Errors at 1.00 Sigma			
TRU Alpha Activity Concentration:	1.81e-05	+/-	2.50e-06 Ci/g
Total Pu-239 Equiv Activity:	8.30e-01	+/-	1.12e-01 Ci
Total Pu-239 Fissile Gram Equiv:	8.83e+00	+/-	1.72e+00 g
Decay Heat:	2.59e-02	+/-	3.54e-03 W
Total Pu Mass:	9.37e+00	+/-	1.72e+00 g
TMU:	19.52%		
Waste Classification:	TRU		

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
------------------	---------------------	-------------------------------

Pu-238	1.46e-02	8.06e+00
Pu-239	9.39e+01	1.06e-01
Pu-240	5.96e+00	1.66e+00
Pu-241	1.09e-01	2.06e+00
Pu-242	3.10e-02	1.00e+01
Am-241	5.04e-01	9.78e-01
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	0.00e+00	0.00e+00

Activity Errors

Isotope	Isotope	1.00 Sigma Mass	Alpha Activity/ Error/Isotope	1.00 Sigma Isotope	MDA
		(g)	Mass (g)	(Ci)	(g)
Pu-238		1.37e-03	2.88e-04	2.34e-02	5.64e-04
Pu-239		8.80e+00	1.72e+00	5.46e-01	6.11e-02
Pu-240		5.58e-01	1.09e-01	1.27e-01	2.48e-02
Pu-241		1.02e-02	2.00e-03	1.05e+00	2.07e-01
Pu-242		2.90e-03	6.36e-04	1.14e-05	2.50e-06
Am-241		3.38e-02	7.10e-03	1.16e-01	2.43e-02
Am-243		0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237		1.73e-03	4.05e-04	1.22e-06	2.85e-07
*U-235	<LLD	0.00e+00	0.00e+00	0.00e+00	6.53e-02
U-238		1.83e+01	5.82e+00	6.14e-06	1.96e-06
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	6.25e-01
CS-137		0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234		0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90		0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Date

12-19-07

Reviewer Signature

Date

Software Version: GWAS v2.3bGEN
 Counter Number: SGS
 Data Review for Container: LL85001765
 Item Description Code: \Count Type: DEBRIS
 Sequence Number: 2506
 Assayed on: 12/13/07 15:34:56
 Report Generated: 12/17/07 07:42:26
 AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

Pu-240 Wt Pct <5.96> +/- 2 Sigma error <0.20>
 is within limits

Pu-240 Wt Pct error <1.66> is within limits

Pu-238 Wt Pct error <8.06> is within limits

QFIT <1.00> is within limits

REVIEW MGAERR12: Calculations in MGAABS didn't converge: MGA results may be suspect

OK

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.215> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <1.45e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <1.01> is acceptable in Segment 1
 Pulser value <0.99> is within range in Segment 1
 DEAD TIME percentage <1.35> is acceptable in Segment 2
 Pulser value <0.99> is within range in Segment 2
 DEAD TIME percentage <1.64> is acceptable in Segment 3
 Pulser value <0.99> is within range in Segment 3
 DEAD TIME percentage <1.78> is acceptable in Segment 4
 Pulser value <0.99> is within range in Segment 4
 DEAD TIME percentage <1.70> is acceptable in Segment 5
 Pulser value <0.99> is within range in Segment 5
 DEAD TIME percentage <1.47> is acceptable in Segment 6
 Pulser value <0.99> is within range in Segment 6
 DEAD TIME percentage <1.67> is acceptable in Segment 7
 Pulser value <0.99> is within range in Segment 7
 DEAD TIME percentage <1.82> is acceptable in Segment 8
 Pulser value <0.99> is within range in Segment 8
 DEAD TIME percentage <1.83> is acceptable in Segment 9
 Pulser value <0.99> is within range in Segment 9
 DEAD TIME percentage <1.95> is acceptable in Segment 10
 Pulser value <0.99> is within range in Segment 10
 DEAD TIME percentage <1.67> is acceptable in Segment 11
 Pulser value <0.99> is within range in Segment 11
 DEAD TIME percentage <1.24> is acceptable in Segment 12
 Pulser value <1.00> is within range in Segment 12
 DEAD TIME percentage <0.96> is acceptable in Segment 13
 Pulser value <0.99> is within range in Segment 13
 DEAD TIME percentage <0.70> is acceptable in Segment 14
 Pulser value <0.99> is within range in Segment 14
 DEAD TIME percentage <0.57> is acceptable in Segment 15
 Pulser value <0.99> is within range in Segment 15
 DEAD TIME percentage <0.55> is acceptable in Segment 16
 Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
 Transmission results are acceptable in Segment 2
 Transmission results are acceptable in Segment 3
 Transmission results are acceptable in Segment 4
 Transmission results are acceptable in Segment 5

Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

All energy peaks within <3.00e+00> RCHISQ limit

Section 7 - FGE MASS REVIEW

FGE Mass <10.55> is within limits

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

Am-241 ratio <260.23> is above lower limit <200.00>
Np-237 ratio <5075.92> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <8.80> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Am-241D > Am-241A: Calculation not performed

OK. Checked.

Independent Reviewer: Robert J. Haskett Jr. Date: 12-19-07

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS
Data Review for Container: LL85001765
Item Description Code:
Sequence Number: 2506
Assayed on: 12/13/07 15:34:56
AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA	
MGAERR12	OK.
SECTION 9 - IDC COUNT TYPE	
IDC is not available.	N/A

Technical Reviewer: Robert J. Harshbarger Date: 12-19-07

***** M G A R E P O R T *****

Report generated on: 12-13-07 4:35:19 PM

MGA version: MGA V9.5 CI

Spectrum ID: 11202506.CNF Sens : 30.0% LT: 58.9 Mins DT: 1.29
Measurement date: 12-13-07 Declared date: 12-13-07

Sample ID: LL85001765 Detector: Total counts: 1.525E+06

Pu g/cm² = 0.1795 Cd g/cm² = 1.5948 FWHM at 122 keV = 616 eV
QFIT = 1.00 FWHM at 208 keV = 786 eV
NQFIT = 1.00

Isotope	Relative to Pu-239	%*		Relative to Pu-241		Meas. date		Decl. date	
		Err	Err	Err	% weight	% Err	% weight	% Err	
Pu-238	0.000155	8.1	8.0	0.1342	8.0	0.01457	8.06	0.01457	8.06
Pu-239	1.000000	0.0	0.8	864.5020	2.1	93.88576	0.11	93.88576	0.11
Pu-240	0.063483	1.8	1.6	54.8808	2.5	5.96011	1.66	5.96011	1.66
Pu-241	0.001157	2.1	1.9	1.0000	0.0	0.10860	2.06	0.10860	2.06
Pu-242	(New alg.)			0.2850 (10)		0.03095 (10)		0.03095 (10)	
Am-241	0.005365	1.0	0.7	4.6377	2.0	0.50366	0.98	0.50366	0.98

Pu-240 effective (meas. date) = 6.049 +/- 1.82%

Am-241 separated about 35.951 +/- 0.308 years ago

Am/Pu-241 weight ratio = 4.63770 +/- 2.02%

Messages :

Lead x-rays detected.
Calculations in MGAABS didn't converge : results may be suspect.
Pu-241/Pu-239 efficiency changed in MGACAL by 2%.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Gamma Waste Assay

Sample Information

File Name: C:\WAS\DATA\2600\11102506.S11
Sample ID: LL85001765 Count Sequence Number: 2506
Assay Start: 12-13-07 3:34:57 PM
Description 1:
Description 2:
Location:
Comment:
Waste Type:
Weight: Gross: 68600.0 g Net: 44800.0 g
Density: 0.215 g /ml
Container Type: 55 Gal Galv 23.8
Container: Volume: 208000. ml Full: 100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: 55 Gal Galv 23.8
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma
Reference Source Date: Reference Source Rate: 1.00E+02 cps
Geometric Correction Factor(SWCONTGCF): 0.760
Date of efficiency calibration approval: 8-27-2003 2:05:34 PM
Mu Factors response file: Lucite
Transmission Calib. Time: 12-10-2007 3:51:07 PM 28849

Reviewed by:



Date: 12-19-07

Segment Results

Segment: 1 Detector: DET01 (# 1) Position: 1

Elapsed Live Time: 113.84 sec Elapsed Real Time: 115.00 sec

Nuclide	Energy	TRANSMISSION RESULTS	
		Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.175 +/- 0.0069
SE-75	264.65	0.000 +/- 0.0000	0.256 +/- 0.0056
SE-75	279.53	0.000 +/- 0.0000	0.266 +/- 0.0063
SE-75	400.65	0.000 +/- 0.0000	0.307 +/- 0.0081

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.21	3.78E-01 +/- 1.09E-01	2.79E+00	5.23E-10 +/- 3.68E-09
2	49.77	4.95E+00 +/- 6.84E-01	2.20E+00	7.87E-07 +/- 2.32E-06
3	60.16	8.29E+01 +/- 1.42E+00	2.07E+00	6.33E-06 +/- 1.17E-05
4	99.30	3.77E+00 +/- 4.54E-01	1.88E+00	1.51E-04 +/- 4.18E-05
5	111.76	1.11E+00 +/- 2.54E-01	1.85E+00	2.20E-04 +/- 2.66E-05
6	125.84	5.23E-01 +/- 2.15E-01	1.82E+00	2.87E-04 +/- 1.88E-05
7	129.29	3.36E+00 +/- 3.55E-01	1.82E+00	3.01E-04 +/- 2.13E-05
8	152.68	2.69E-01 +/- 1.76E-01	1.77E+00	3.67E-04 +/- 4.47E-05
9	208.70	1.13E+00 +/- 1.93E-01	1.68E+00	3.80E-04 +/- 4.53E-05
10	264.66	2.25E-01 +/- 1.04E-01	1.60E+00	3.24E-04 +/- 2.30E-05
11	300.10	1.50E-01 +/- 1.08E-01	1.57E+00	2.87E-04 +/- 1.52E-05
12	311.90	1.18E-01 +/- 7.63E-02	1.57E+00	2.76E-04 +/- 1.41E-05
13	333.28	5.99E-01 +/- 1.31E-01	1.55E+00	2.57E-04 +/- 1.33E-05
14	345.67	4.90E-01 +/- 9.30E-02	1.55E+00	2.47E-04 +/- 1.34E-05
15	369.26	1.59E-01 +/- 8.46E-02	1.53E+00	2.30E-04 +/- 1.38E-05
16	375.74	1.09E+00 +/- 1.48E-01	1.53E+00	2.25E-04 +/- 1.40E-05
17	383.64	2.49E-01 +/- 1.22E-01	1.52E+00	2.20E-04 +/- 1.41E-05
18	393.67	3.98E-01 +/- 8.80E-02	1.52E+00	2.14E-04 +/- 1.43E-05
19	400.66	1.24E-01 +/- 5.34E-02	1.52E+00	2.10E-04 +/- 1.43E-05
20	413.70	1.30E+00 +/- 1.24E-01	1.51E+00	2.03E-04 +/- 1.44E-05
21	452.00	1.91E-01 +/- 5.60E-02	1.49E+00	1.84E-04 +/- 1.43E-05
22	662.42	9.12E-02 +/- 3.32E-02	1.39E+00	1.27E-04 +/- 8.85E-06
23	867.39	2.72E-02 +/- 1.99E-02	1.33E+00	1.02E-04 +/- 5.64E-06
24	1112.12	3.39E-02 +/- 2.24E-02	1.29E+00	8.48E-05 +/- 4.39E-06
25	2236.00	1.00E+02 +/- 1.50E+00	1.20E+00	3.40E-05 +/- 2.15E-05

Segment: 2

Detector: DET01 (# 1)

Position: 2

Elapsed Live Time: 113.45 sec Elapsed Real Time: 115.00 sec

		TRANSMISSION RESULTS	
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.201 +/- 0.0076
SE-75	264.65	0.000 +/- 0.0000	0.287 +/- 0.0063
SE-75	279.53	0.000 +/- 0.0000	0.293 +/- 0.0069
SE-75	400.65	0.000 +/- 0.0000	0.341 +/- 0.0089

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.91	6.13E-01 +/- 1.75E-01	2.63E+00	1.85E-05 +/- 1.15E-04
2	50.07	5.29E+00 +/- 6.60E-01	2.07E+00	8.36E-05 +/- 2.13E-04
3	60.16	1.49E+02 +/- 2.23E+00	1.97E+00	1.33E-04 +/- 2.14E-04
4	99.35	8.99E+00 +/- 5.65E-01	1.80E+00	3.09E-04 +/- 7.52E-05
5	103.81	5.53E+00 +/- 5.21E-01	1.79E+00	3.24E-04 +/- 6.01E-05
6	111.67	9.75E-01 +/- 5.10E-01	1.77E+00	3.48E-04 +/- 3.79E-05
7	115.91	2.92E+00 +/- 3.51E-01	1.76E+00	3.59E-04 +/- 2.91E-05
M 8	125.94	2.09E+00 +/- 1.96E-01	1.74E+00	3.82E-04 +/- 2.26E-05
m 9	129.98	1.01E+01 +/- 5.06E-01	1.74E+00	3.89E-04 +/- 2.52E-05
10	148.57	4.62E-01 +/- 2.40E-01	1.71E+00	4.14E-04 +/- 4.21E-05
11	172.15	4.75E-01 +/- 2.38E-01	1.67E+00	4.29E-04 +/- 5.11E-05
12	204.20	5.06E-01 +/- 2.68E-01	1.62E+00	4.27E-04 +/- 4.63E-05
13	208.72	1.28E+00 +/- 2.97E-01	1.62E+00	4.25E-04 +/- 4.48E-05
M 14	333.55	7.73E-01 +/- 1.40E-01	1.50E+00	3.42E-04 +/- 1.64E-05
m 15	336.26	3.08E-01 +/- 7.88E-02	1.50E+00	3.40E-04 +/- 1.64E-05
16	345.64	9.08E-01 +/- 1.45E-01	1.49E+00	3.34E-04 +/- 1.66E-05
17	375.68	1.53E+00 +/- 2.17E-01	1.48E+00	3.13E-04 +/- 1.75E-05
M 18	380.89	4.44E-01 +/- 9.23E-02	1.47E+00	3.10E-04 +/- 1.77E-05
m 19	383.37	4.93E-01 +/- 9.63E-02	1.47E+00	3.08E-04 +/- 1.78E-05
20	393.76	8.98E-01 +/- 1.08E-01	1.47E+00	3.01E-04 +/- 1.81E-05
21	413.70	2.35E+00 +/- 1.64E-01	1.46E+00	2.89E-04 +/- 1.85E-05
22	452.37	2.09E-01 +/- 6.92E-02	1.44E+00	2.67E-04 +/- 1.85E-05
23	662.42	1.59E-01 +/- 4.57E-02	1.35E+00	1.86E-04 +/- 1.15E-05
24	1001.03	1.75E-02 +/- 1.23E-02	1.27E+00	1.28E-04 +/- 5.83E-06
25	2236.00	1.00E+02 +/- 1.50E+00	1.18E+00	9.73E-05 +/- 5.41E-05

Segment: 3

Detector: DET01 (# 1)

Position: 3

Elapsed Live Time: 113.11 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.182 +/- 0.0072
SE-75	264.65	0.000 +/- 0.0000	0.266 +/- 0.0058
SE-75	279.53	0.000 +/- 0.0000	0.277 +/- 0.0065
SE-75	400.65	0.000 +/- 0.0000	0.328 +/- 0.0086

PEAK ANALYSIS RESULTS				
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.68	9.13E-01 +/- 2.01E-01	2.78E+00	3.20E-06 +/- 3.11E-06
2	50.08	1.23E+01 +/- 1.03E+00	2.16E+00	3.91E-05 +/- 1.89E-05
3	60.17	1.97E+02 +/- 2.80E+00	2.04E+00	8.08E-05 +/- 2.79E-05
4	99.36	1.26E+01 +/- 6.54E-01	1.86E+00	2.97E-04 +/- 3.03E-05
5	103.87	1.02E+01 +/- 5.24E-01	1.85E+00	3.19E-04 +/- 2.87E-05
6	111.71	2.20E+00 +/- 4.54E-01	1.83E+00	3.54E-04 +/- 2.60E-05
M 7	125.95	2.65E+00 +/- 2.27E-01	1.80E+00	4.08E-04 +/- 2.27E-05
m 8	129.99	1.34E+01 +/- 5.87E-01	1.79E+00	4.20E-04 +/- 2.22E-05
9	144.83	4.14E-01 +/- 2.47E-01	1.77E+00	4.56E-04 +/- 2.23E-05
10	148.57	5.89E-01 +/- 2.81E-01	1.76E+00	4.63E-04 +/- 2.25E-05
11	208.68	2.76E+00 +/- 3.55E-01	1.66E+00	4.92E-04 +/- 2.59E-05
12	279.54	2.47E-01 +/- 1.76E-01	1.57E+00	4.36E-04 +/- 2.07E-05
13	300.10	3.94E-01 +/- 1.35E-01	1.55E+00	4.16E-04 +/- 1.88E-05
14	311.90	4.11E-01 +/- 1.29E-01	1.54E+00	4.04E-04 +/- 1.79E-05
M 15	333.47	1.49E+00 +/- 1.84E-01	1.53E+00	3.84E-04 +/- 1.63E-05
m 16	336.46	6.94E-01 +/- 1.10E-01	1.52E+00	3.81E-04 +/- 1.61E-05
17	345.71	1.33E+00 +/- 1.72E-01	1.52E+00	3.72E-04 +/- 1.56E-05
18	368.74	5.99E-01 +/- 1.48E-01	1.50E+00	3.52E-04 +/- 1.44E-05
19	375.76	3.76E+00 +/- 2.43E-01	1.50E+00	3.46E-04 +/- 1.41E-05
20	393.63	1.64E+00 +/- 1.48E-01	1.49E+00	3.31E-04 +/- 1.34E-05
21	413.70	3.87E+00 +/- 2.00E-01	1.48E+00	3.16E-04 +/- 1.28E-05
22	423.39	2.33E-01 +/- 7.87E-02	1.47E+00	3.09E-04 +/- 1.26E-05
23	452.20	4.14E-01 +/- 8.27E-02	1.45E+00	2.89E-04 +/- 1.20E-05
24	662.42	1.53E-01 +/- 5.18E-02	1.37E+00	1.95E-04 +/- 9.62E-06
25	722.01	1.07E-01 +/- 4.34E-02	1.35E+00	1.79E-04 +/- 8.87E-06
26	2236.00	1.00E+02 +/- 1.50E+00	1.19E+00	1.32E-04 +/- 3.24E-05

Segment: 4 Detector: DET01 (# 1) Position: 4

Elapsed Live Time: 112.95 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.196 +/- 0.0073
SE-75	264.65	0.000 +/- 0.0000	0.301 +/- 0.0066
SE-75	279.53	0.000 +/- 0.0000	0.302 +/- 0.0071
SE-75	400.65	0.000 +/- 0.0000	0.362 +/- 0.0093

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.99	5.36E-01 +/- 1.50E-01	2.66E+00	1.15E-07 +/- 7.07E-07
2	50.10	1.02E+01 +/- 9.60E-01	2.09E+00	1.07E-05 +/- 2.67E-05
3	60.17	2.18E+02 +/- 3.07E+00	1.98E+00	3.62E-05 +/- 5.76E-05
4	99.40	1.20E+01 +/- 7.57E-01	1.81E+00	2.64E-04 +/- 6.33E-05
5	111.69	1.10E+00 +/- 5.30E-01	1.78E+00	3.35E-04 +/- 3.62E-05
6	115.75	1.26E+00 +/- 5.46E-01	1.78E+00	3.55E-04 +/- 2.91E-05
M 7	125.95	3.20E+00 +/- 2.52E-01	1.76E+00	3.99E-04 +/- 2.37E-05
m 8	129.96	1.49E+01 +/- 6.20E-01	1.75E+00	4.14E-04 +/- 2.68E-05
9	208.67	3.77E+00 +/- 2.82E-01	1.61E+00	4.80E-04 +/- 5.05E-05
10	256.11	3.81E-01 +/- 2.15E-01	1.54E+00	4.36E-04 +/- 3.05E-05
11	311.90	4.73E-01 +/- 1.81E-01	1.50E+00	3.77E-04 +/- 1.75E-05
12	321.33	6.31E-01 +/- 1.82E-01	1.49E+00	3.68E-04 +/- 1.69E-05
M 13	333.46	1.78E+00 +/- 2.07E-01	1.48E+00	3.57E-04 +/- 1.65E-05
m 14	336.25	6.89E-01 +/- 1.15E-01	1.48E+00	3.54E-04 +/- 1.65E-05
15	345.77	1.58E+00 +/- 1.86E-01	1.47E+00	3.46E-04 +/- 1.65E-05
16	368.92	3.18E-01 +/- 2.10E-01	1.46E+00	3.26E-04 +/- 1.70E-05
17	375.73	3.29E+00 +/- 2.97E-01	1.45E+00	3.21E-04 +/- 1.71E-05
M 18	380.91	7.32E-01 +/- 1.24E-01	1.45E+00	3.17E-04 +/- 1.72E-05
m 19	383.59	6.09E-01 +/- 1.07E-01	1.45E+00	3.15E-04 +/- 1.73E-05
20	393.57	1.65E+00 +/- 1.51E-01	1.44E+00	3.08E-04 +/- 1.75E-05
21	413.70	4.56E+00 +/- 2.40E-01	1.43E+00	2.94E-04 +/- 1.78E-05
22	423.25	2.77E-01 +/- 7.98E-02	1.42E+00	2.87E-04 +/- 1.79E-05
23	452.12	4.63E-01 +/- 9.08E-02	1.41E+00	2.70E-04 +/- 1.78E-05
24	511.28	1.27E-01 +/- 4.40E-02	1.38E+00	2.41E-04 +/- 1.65E-05
25	662.42	2.56E-01 +/- 5.27E-02	1.33E+00	1.90E-04 +/- 1.13E-05
26	722.01	1.85E-01 +/- 5.56E-02	1.32E+00	1.77E-04 +/- 9.59E-06
27	778.90	4.38E-02 +/- 1.96E-02	1.30E+00	1.66E-04 +/- 8.40E-06
28	867.39	2.63E-02 +/- 1.52E-02	1.28E+00	1.52E-04 +/- 7.25E-06
29	1001.03	8.75E-03 +/- 8.75E-03	1.26E+00	1.37E-04 +/- 6.33E-06
30	2236.00	1.00E+02 +/- 1.51E+00	1.17E+00	7.00E-05 +/- 3.84E-05

Segment: 5

Detector: DET01 (# 1)

Position: 5

Elapsed Live Time: 113.05 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.104 +/- 0.0049
SE-75	264.65	0.000 +/- 0.0000	0.172 +/- 0.0039
SE-75	279.53	0.000 +/- 0.0000	0.176 +/- 0.0044
SE-75	400.65	0.000 +/- 0.0000	0.224 +/- 0.0063

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.95	5.50E-01 +/- 1.64E-01	3.49E+00	2.68E-07 +/- 1.78E-06
2	50.09	9.12E+00 +/- 9.34E-01	2.63E+00	1.60E-05 +/- 4.33E-05
3	60.17	2.14E+02 +/- 3.01E+00	2.46E+00	4.79E-05 +/- 8.23E-05
4	99.37	1.10E+01 +/- 7.09E-01	2.20E+00	2.78E-04 +/- 7.10E-05
5	111.63	1.98E+00 +/- 4.55E-01	2.16E+00	3.41E-04 +/- 3.84E-05
M 6	125.92	3.06E+00 +/- 2.46E-01	2.12E+00	3.97E-04 +/- 2.36E-05
m 7	130.00	1.26E+01 +/- 5.72E-01	2.11E+00	4.09E-04 +/- 2.73E-05
8	208.69	2.05E+00 +/- 3.22E-01	1.92E+00	4.56E-04 +/- 5.12E-05
9	311.90	3.64E-01 +/- 1.44E-01	1.76E+00	3.62E-04 +/- 1.74E-05
M 10	333.41	1.54E+00 +/- 1.84E-01	1.74E+00	3.43E-04 +/- 1.67E-05
m 11	336.49	8.16E-01 +/- 1.19E-01	1.74E+00	3.41E-04 +/- 1.67E-05
12	345.63	9.68E-01 +/- 2.64E-01	1.73E+00	3.33E-04 +/- 1.69E-05
13	368.86	2.43E-01 +/- 1.88E-01	1.70E+00	3.16E-04 +/- 1.77E-05
14	375.72	2.64E+00 +/- 2.66E-01	1.70E+00	3.11E-04 +/- 1.79E-05
M 15	380.88	5.38E-01 +/- 1.06E-01	1.69E+00	3.07E-04 +/- 1.81E-05
m 16	383.36	6.46E-01 +/- 1.16E-01	1.69E+00	3.06E-04 +/- 1.82E-05
17	393.58	1.48E+00 +/- 1.38E-01	1.68E+00	2.99E-04 +/- 1.85E-05
18	413.70	3.53E+00 +/- 1.91E-01	1.66E+00	2.86E-04 +/- 1.90E-05
19	423.17	1.45E-01 +/- 7.03E-02	1.66E+00	2.81E-04 +/- 1.91E-05
20	452.35	3.06E-01 +/- 8.31E-02	1.63E+00	2.65E-04 +/- 1.91E-05
21	662.42	2.08E-01 +/- 5.68E-02	1.51E+00	1.90E-04 +/- 1.21E-05
22	722.01	9.89E-02 +/- 4.36E-02	1.48E+00	1.77E-04 +/- 1.01E-05
23	1001.03	1.75E-02 +/- 1.24E-02	1.39E+00	1.35E-04 +/- 6.17E-06
24	1112.12	1.90E-02 +/- 1.74E-02	1.37E+00	1.23E-04 +/- 5.54E-06
25	2236.00	1.00E+02 +/- 1.50E+00	1.26E+00	5.76E-05 +/- 3.29E-05

Segment: 6

Detector: DET01 (# 1)

Position: 6

Elapsed Live Time: 113.31 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.091 +/- 0.0042
SE-75	264.65	0.000 +/- 0.0000	0.147 +/- 0.0033
SE-75	279.53	0.000 +/- 0.0000	0.153 +/- 0.0039
SE-75	400.65	0.000 +/- 0.0000	0.192 +/- 0.0055

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.05	4.36E-01 +/- 1.29E-01	3.66E+00	4.71E-07 +/- 2.96E-06
2	50.20	6.43E+00 +/- 7.75E-01	2.75E+00	2.21E-05 +/- 5.68E-05
3	60.17	1.69E+02 +/- 2.47E+00	2.57E+00	6.08E-05 +/- 9.94E-05
4	99.30	9.45E+00 +/- 5.77E-01	2.28E+00	3.06E-04 +/- 7.51E-05
5	103.69	8.46E+00 +/- 4.58E-01	2.27E+00	3.30E-04 +/- 6.19E-05
6	111.72	1.24E+00 +/- 4.11E-01	2.24E+00	3.69E-04 +/- 3.99E-05
M 7	125.90	2.77E+00 +/- 2.32E-01	2.20E+00	4.21E-04 +/- 2.46E-05
m 8	129.97	9.65E+00 +/- 4.99E-01	2.19E+00	4.33E-04 +/- 2.80E-05
9	144.86	4.65E-01 +/- 3.16E-01	2.15E+00	4.64E-04 +/- 4.50E-05
10	208.66	3.00E+00 +/- 2.66E-01	2.00E+00	4.72E-04 +/- 5.09E-05
M 11	333.51	1.11E+00 +/- 1.61E-01	1.82E+00	3.65E-04 +/- 1.73E-05
m 12	336.29	4.48E-01 +/- 9.21E-02	1.82E+00	3.63E-04 +/- 1.73E-05
13	345.66	8.71E-01 +/- 1.51E-01	1.81E+00	3.55E-04 +/- 1.74E-05
14	375.67	2.00E+00 +/- 2.28E-01	1.78E+00	3.34E-04 +/- 1.84E-05
M 15	381.04	4.31E-01 +/- 9.41E-02	1.77E+00	3.30E-04 +/- 1.86E-05
m 16	383.43	4.74E-01 +/- 9.61E-02	1.77E+00	3.28E-04 +/- 1.87E-05
17	393.67	9.37E-01 +/- 1.15E-01	1.76E+00	3.22E-04 +/- 1.90E-05
18	400.66	9.79E-02 +/- 6.64E-02	1.76E+00	3.17E-04 +/- 1.92E-05
19	413.70	2.74E+00 +/- 1.69E-01	1.74E+00	3.09E-04 +/- 1.95E-05
20	423.02	2.70E-01 +/- 7.30E-02	1.73E+00	3.04E-04 +/- 1.96E-05
21	452.16	2.41E-01 +/- 6.98E-02	1.71E+00	2.88E-04 +/- 1.97E-05
22	662.42	2.05E-01 +/- 5.91E-02	1.57E+00	2.10E-04 +/- 1.26E-05
23	678.68	4.36E-02 +/- 2.64E-02	1.56E+00	2.06E-04 +/- 1.20E-05
24	722.01	8.73E-02 +/- 2.76E-02	1.54E+00	1.95E-04 +/- 1.05E-05
25	964.13	3.10E-02 +/- 2.46E-02	1.45E+00	1.51E-04 +/- 6.52E-06
26	1001.03	1.75E-02 +/- 1.23E-02	1.44E+00	1.45E-04 +/- 6.25E-06
27	2236.00	1.00E+02 +/- 1.50E+00	1.29E+00	4.34E-05 +/- 2.42E-05

Segment: 7

Detector: DET01 (# 1)

Position: 7

Elapsed Live Time: 113.08 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.117 +/- 0.0058
SE-75	264.65	0.000 +/- 0.0000	0.197 +/- 0.0044
SE-75	279.53	0.000 +/- 0.0000	0.209 +/- 0.0051
SE-75	400.65	0.000 +/- 0.0000	0.256 +/- 0.0070

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.32	1.26E+00 +/- 2.28E-01	3.30E+00	5.79E-09 +/- 3.27E-08
2	50.14	7.89E+00 +/- 9.83E-01	2.53E+00	2.93E-06 +/- 6.87E-06
3	60.17	1.63E+02 +/- 2.41E+00	2.37E+00	1.60E-05 +/- 2.39E-05
4	99.36	1.24E+01 +/- 7.50E-01	2.12E+00	2.43E-04 +/- 5.52E-05
5	111.75	3.37E+00 +/- 4.97E-01	2.08E+00	3.35E-04 +/- 3.48E-05
M 6	125.96	2.44E+00 +/- 2.22E-01	2.05E+00	4.24E-04 +/- 2.46E-05
m 7	129.99	1.48E+01 +/- 6.26E-01	2.04E+00	4.45E-04 +/- 2.77E-05
8	148.57	1.08E+00 +/- 2.95E-01	1.99E+00	5.16E-04 +/- 4.85E-05
9	161.21	6.37E-01 +/- 3.14E-01	1.96E+00	5.43E-04 +/- 5.75E-05
10	196.51	6.31E-01 +/- 2.37E-01	1.87E+00	5.56E-04 +/- 5.78E-05
11	204.28	2.13E+00 +/- 2.87E-01	1.86E+00	5.51E-04 +/- 5.50E-05
12	208.67	1.04E+00 +/- 4.40E-01	1.85E+00	5.47E-04 +/- 5.32E-05
13	255.79	6.08E-01 +/- 2.09E-01	1.76E+00	4.90E-04 +/- 3.19E-05
14	268.24	4.10E-01 +/- 2.27E-01	1.73E+00	4.73E-04 +/- 2.74E-05
M 15	298.04	2.74E-01 +/- 1.17E-01	1.69E+00	4.34E-04 +/- 2.02E-05
m 16	301.03	1.30E-01 +/- 6.88E-02	1.69E+00	4.30E-04 +/- 1.97E-05
17	311.90	4.58E-01 +/- 1.67E-01	1.68E+00	4.17E-04 +/- 1.86E-05
M 18	321.66	3.36E-01 +/- 1.08E-01	1.67E+00	4.05E-04 +/- 1.79E-05
m 19	324.53	3.38E-01 +/- 1.08E-01	1.67E+00	4.02E-04 +/- 1.78E-05
M 20	333.44	2.41E+00 +/- 2.53E-01	1.66E+00	3.91E-04 +/- 1.76E-05
m 21	336.40	5.04E-01 +/- 9.96E-02	1.66E+00	3.88E-04 +/- 1.76E-05
22	345.68	1.63E+00 +/- 1.69E-01	1.65E+00	3.78E-04 +/- 1.76E-05
23	368.71	8.43E-01 +/- 1.48E-01	1.63E+00	3.55E-04 +/- 1.81E-05
24	375.69	4.16E+00 +/- 3.31E-01	1.62E+00	3.48E-04 +/- 1.82E-05
M 25	380.89	1.05E+00 +/- 1.47E-01	1.62E+00	3.44E-04 +/- 1.83E-05
m 26	383.44	8.89E-01 +/- 1.27E-01	1.62E+00	3.42E-04 +/- 1.84E-05
27	393.60	1.89E+00 +/- 1.72E-01	1.61E+00	3.33E-04 +/- 1.86E-05
28	413.70	5.44E+00 +/- 2.39E-01	1.60E+00	3.17E-04 +/- 1.88E-05
29	423.34	3.26E-01 +/- 8.08E-02	1.59E+00	3.10E-04 +/- 1.88E-05
30	452.33	7.29E-01 +/- 1.03E-01	1.57E+00	2.90E-04 +/- 1.86E-05
31	662.42	1.78E-01 +/- 5.52E-02	1.46E+00	2.03E-04 +/- 1.17E-05
32	778.90	4.72E-02 +/- 2.76E-02	1.42E+00	1.77E-04 +/- 8.73E-06
33	2236.00	1.00E+02 +/- 1.50E+00	1.24E+00	5.07E-05 +/- 2.69E-05

Segment: 8

Detector: DET01 (# 1)

Position: 8

Elapsed Live Time: 112.91 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS	
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.161 +/- 0.0069
SE-75	264.65	0.000 +/- 0.0000	0.252 +/- 0.0055
SE-75	279.53	0.000 +/- 0.0000	0.256 +/- 0.0061
SE-75	400.65	0.000 +/- 0.0000	0.295 +/- 0.0079

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.06	1.84E+00 +/- 2.31E-01	2.91E+00	7.67E-06 +/- 7.46E-06
2	49.98	1.02E+01 +/- 1.04E+00	2.26E+00	5.92E-05 +/- 2.92E-05
3	60.16	1.76E+02 +/- 2.57E+00	2.13E+00	1.10E-04 +/- 3.84E-05
4	99.33	9.81E+00 +/- 8.75E-01	1.93E+00	3.24E-04 +/- 3.31E-05
5	104.07	1.74E+00 +/- 8.57E-01	1.92E+00	3.45E-04 +/- 3.07E-05
6	111.67	2.19E+00 +/- 5.99E-01	1.90E+00	3.75E-04 +/- 2.73E-05
7	116.01	2.93E+00 +/- 6.29E-01	1.89E+00	3.90E-04 +/- 2.56E-05
M 8	125.94	2.44E+00 +/- 2.31E-01	1.87E+00	4.19E-04 +/- 2.31E-05
m 9	129.98	1.85E+01 +/- 7.10E-01	1.86E+00	4.29E-04 +/- 2.26E-05
10	144.75	5.70E-01 +/- 3.24E-01	1.83E+00	4.57E-04 +/- 2.25E-05
11	204.21	1.25E+00 +/- 3.83E-01	1.71E+00	4.76E-04 +/- 2.61E-05
12	208.69	2.53E+00 +/- 3.78E-01	1.70E+00	4.74E-04 +/- 2.60E-05
13	256.11	7.18E-01 +/- 2.18E-01	1.63E+00	4.39E-04 +/- 2.28E-05
14	311.90	3.60E-01 +/- 2.13E-01	1.58E+00	3.88E-04 +/- 1.78E-05
15	324.19	3.09E-01 +/- 1.71E-01	1.58E+00	3.77E-04 +/- 1.69E-05
M 16	333.45	2.92E+00 +/- 2.66E-01	1.57E+00	3.69E-04 +/- 1.62E-05
m 17	336.49	8.59E-01 +/- 1.18E-01	1.57E+00	3.66E-04 +/- 1.60E-05
18	345.67	2.06E+00 +/- 2.96E-01	1.56E+00	3.59E-04 +/- 1.54E-05
19	369.21	8.39E-01 +/- 2.13E-01	1.55E+00	3.39E-04 +/- 1.41E-05
20	375.75	5.08E+00 +/- 3.49E-01	1.55E+00	3.34E-04 +/- 1.38E-05
M 21	380.86	9.37E-01 +/- 1.33E-01	1.54E+00	3.30E-04 +/- 1.36E-05
m 22	383.52	1.19E+00 +/- 1.55E-01	1.54E+00	3.28E-04 +/- 1.35E-05
23	393.59	2.36E+00 +/- 1.95E-01	1.54E+00	3.21E-04 +/- 1.31E-05
24	413.70	6.11E+00 +/- 2.65E-01	1.53E+00	3.06E-04 +/- 1.25E-05
25	423.39	4.54E-01 +/- 8.71E-02	1.52E+00	3.00E-04 +/- 1.22E-05
26	452.29	6.49E-01 +/- 1.06E-01	1.50E+00	2.82E-04 +/- 1.16E-05
27	662.42	1.38E-01 +/- 4.73E-02	1.41E+00	1.93E-04 +/- 9.41E-06
28	722.01	1.23E-01 +/- 3.29E-02	1.39E+00	1.78E-04 +/- 8.71E-06
29	1085.91	1.75E-02 +/- 1.24E-02	1.30E+00	1.28E-04 +/- 4.75E-06
30	2236.00	1.00E+02 +/- 1.51E+00	1.21E+00	1.19E-04 +/- 2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 112.90 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.129 +/- 0.0059
SE-75	264.65	0.000 +/- 0.0000	0.188 +/- 0.0042
SE-75	279.53	0.000 +/- 0.0000	0.191 +/- 0.0047
SE-75	400.65	0.000 +/- 0.0000	0.241 +/- 0.0067

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.81	1.18E+00 +/- 2.06E-01	3.22E+00	5.44E-09 +/- 3.32E-08
2	50.11	1.14E+01 +/- 1.15E+00	2.44E+00	3.12E-06 +/- 7.69E-06
3	60.16	2.00E+02 +/- 2.88E+00	2.29E+00	1.65E-05 +/- 2.58E-05
4	99.34	1.13E+01 +/- 7.70E-01	2.06E+00	2.35E-04 +/- 5.58E-05
5	111.68	2.48E+00 +/- 5.12E-01	2.03E+00	3.22E-04 +/- 3.46E-05
M 6	125.93	2.60E+00 +/- 2.37E-01	1.99E+00	4.04E-04 +/- 2.41E-05
m 7	129.97	1.58E+01 +/- 6.57E-01	1.98E+00	4.24E-04 +/- 2.72E-05
8	148.57	8.07E-01 +/- 3.24E-01	1.95E+00	4.88E-04 +/- 4.79E-05
9	161.41	1.67E+00 +/- 3.76E-01	1.92E+00	5.12E-04 +/- 5.67E-05
10	172.21	6.28E-01 +/- 2.55E-01	1.90E+00	5.22E-04 +/- 5.97E-05
11	179.85	4.03E-01 +/- 2.27E-01	1.89E+00	5.24E-04 +/- 5.99E-05
12	204.19	8.19E-01 +/- 2.87E-01	1.85E+00	5.14E-04 +/- 5.34E-05
13	208.69	1.82E+00 +/- 3.87E-01	1.84E+00	5.11E-04 +/- 5.15E-05
14	256.16	5.02E-01 +/- 1.82E-01	1.78E+00	4.54E-04 +/- 3.03E-05
15	311.90	2.45E-01 +/- 1.73E-01	1.72E+00	3.83E-04 +/- 1.78E-05
M 16	333.40	2.02E+00 +/- 2.21E-01	1.70E+00	3.59E-04 +/- 1.71E-05
m 17	336.33	6.35E-01 +/- 1.09E-01	1.70E+00	3.56E-04 +/- 1.71E-05
18	345.68	2.11E+00 +/- 2.77E-01	1.69E+00	3.46E-04 +/- 1.72E-05
19	375.74	3.15E+00 +/- 3.03E-01	1.66E+00	3.18E-04 +/- 1.78E-05
M 20	380.87	9.34E-01 +/- 1.35E-01	1.65E+00	3.14E-04 +/- 1.79E-05
m 21	383.51	7.57E-01 +/- 1.14E-01	1.65E+00	3.12E-04 +/- 1.80E-05
22	393.71	1.53E+00 +/- 1.59E-01	1.64E+00	3.03E-04 +/- 1.81E-05
23	400.66	1.50E-01 +/- 1.02E-01	1.64E+00	2.98E-04 +/- 1.82E-05
24	413.70	4.15E+00 +/- 2.16E-01	1.63E+00	2.88E-04 +/- 1.83E-05
25	423.08	2.91E-01 +/- 8.58E-02	1.62E+00	2.82E-04 +/- 1.83E-05
26	452.15	7.23E-01 +/- 1.02E-01	1.60E+00	2.63E-04 +/- 1.81E-05
27	662.42	1.92E-01 +/- 5.57E-02	1.48E+00	1.84E-04 +/- 1.12E-05
28	722.01	6.60E-02 +/- 3.64E-02	1.46E+00	1.72E-04 +/- 9.44E-06
29	867.39	8.80E-03 +/- 8.80E-03	1.41E+00	1.49E-04 +/- 7.00E-06
30	1001.03	8.80E-03 +/- 8.80E-03	1.37E+00	1.35E-04 +/- 6.06E-06
31	2236.00	1.00E+02 +/- 1.51E+00	1.25E+00	6.12E-05 +/- 3.31E-05

Segment: 10

Detector: DET01 (# 1)

Position: 10

Elapsed Live Time: 112.76 sec Elapsed Real Time: 115.00 sec

		TRANSMISSION RESULTS	
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.081 +/- 0.0046
SE-75	264.65	0.000 +/- 0.0000	0.126 +/- 0.0029
SE-75	279.53	0.000 +/- 0.0000	0.132 +/- 0.0035
SE-75	400.65	0.000 +/- 0.0000	0.164 +/- 0.0049

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.15	1.39E+00 +/- 2.34E-01	3.82E+00	1.69E-05 +/- 1.67E-05
2	50.16	7.98E+00 +/- 9.60E-01	2.86E+00	8.47E-05 +/- 4.23E-05
3	60.16	2.12E+02 +/- 3.02E+00	2.67E+00	1.37E-04 +/- 4.88E-05
4	99.33	1.35E+01 +/- 8.08E-01	2.36E+00	3.30E-04 +/- 3.41E-05
5	111.72	3.12E+00 +/- 5.31E-01	2.32E+00	3.72E-04 +/- 2.73E-05
M 6	125.96	2.83E+00 +/- 2.46E-01	2.27E+00	4.08E-04 +/- 2.27E-05
m 7	129.98	1.68E+01 +/- 6.72E-01	2.26E+00	4.16E-04 +/- 2.21E-05
8	144.74	5.43E-01 +/- 3.44E-01	2.22E+00	4.39E-04 +/- 2.19E-05
9	148.57	5.08E-01 +/- 3.30E-01	2.21E+00	4.43E-04 +/- 2.22E-05
10	161.10	8.26E-01 +/- 4.03E-01	2.18E+00	4.54E-04 +/- 2.33E-05
11	171.70	6.03E-01 +/- 2.82E-01	2.16E+00	4.59E-04 +/- 2.42E-05
12	190.03	5.09E-01 +/- 3.23E-01	2.12E+00	4.60E-04 +/- 2.51E-05
13	204.23	5.98E-01 +/- 3.77E-01	2.09E+00	4.57E-04 +/- 2.52E-05
14	208.68	2.88E+00 +/- 4.19E-01	2.08E+00	4.56E-04 +/- 2.51E-05
15	256.21	5.85E-01 +/- 2.52E-01	2.00E+00	4.29E-04 +/- 2.22E-05
16	300.10	2.64E-01 +/- 1.94E-01	1.94E+00	3.96E-04 +/- 1.86E-05
17	311.90	3.04E-01 +/- 1.62E-01	1.92E+00	3.87E-04 +/- 1.76E-05
M 18	333.50	2.60E+00 +/- 2.46E-01	1.90E+00	3.71E-04 +/- 1.62E-05
m 19	336.53	9.29E-01 +/- 1.23E-01	1.90E+00	3.68E-04 +/- 1.60E-05
20	345.75	2.29E+00 +/- 2.17E-01	1.89E+00	3.61E-04 +/- 1.54E-05
21	368.81	7.08E-01 +/- 1.86E-01	1.87E+00	3.45E-04 +/- 1.43E-05
22	375.74	3.81E+00 +/- 3.31E-01	1.86E+00	3.40E-04 +/- 1.40E-05
M 23	380.78	8.38E-01 +/- 1.38E-01	1.86E+00	3.37E-04 +/- 1.38E-05
m 24	383.57	6.74E-01 +/- 1.16E-01	1.86E+00	3.35E-04 +/- 1.37E-05
25	393.70	1.86E+00 +/- 1.85E-01	1.85E+00	3.28E-04 +/- 1.34E-05
26	400.66	1.31E-01 +/- 8.12E-02	1.84E+00	3.24E-04 +/- 1.32E-05
27	413.70	5.18E+00 +/- 2.35E-01	1.83E+00	3.15E-04 +/- 1.29E-05
28	423.29	2.35E-01 +/- 9.44E-02	1.82E+00	3.09E-04 +/- 1.27E-05
29	452.18	7.02E-01 +/- 9.18E-02	1.79E+00	2.92E-04 +/- 1.22E-05
30	662.42	2.54E-01 +/- 6.64E-02	1.63E+00	2.06E-04 +/- 1.03E-05
31	722.01	1.05E-01 +/- 4.30E-02	1.60E+00	1.89E-04 +/- 9.55E-06

32	778.90	1.76E-02	+/-	1.24E-02	1.57E+00	1.76E-04	+/-	8.75E-06
33	1408.01	8.80E-03	+/-	8.80E-03	1.40E+00	1.09E-04	+/-	6.83E-06
34	2236.00	1.00E+02	+/-	1.51E+00	1.32E+00	9.04E-05	+/-	2.29E-05

Segment: 11

Detector: DET01 (# 1)

Position: 11

Elapsed Live Time: 113.08 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.083 +/- 0.0046
SE-75	264.65	0.000 +/- 0.0000	0.136 +/- 0.0031
SE-75	279.53	0.000 +/- 0.0000	0.138 +/- 0.0036
SE-75	400.65	0.000 +/- 0.0000	0.167 +/- 0.0050

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.73	1.18E+00	+/- 1.91E-01	3.82E+00 1.36E-03 +/- 8.96E-03
2	50.07	7.06E+00	+/- 8.95E-01	2.83E+00 6.00E-04 +/- 1.59E-03
3	60.16	1.60E+02	+/- 2.39E+00	2.64E+00 5.03E-04 +/- 8.47E-04
4	99.35	1.35E+01	+/- 6.39E-01	2.34E+00 4.09E-04 +/- 1.03E-04
5	103.84	8.45E+00	+/- 6.16E-01	2.32E+00 4.07E-04 +/- 7.76E-05
6	111.72	1.01E+00	+/- 5.30E-01	2.29E+00 4.03E-04 +/- 4.46E-05
7	116.09	1.64E+00	+/- 5.57E-01	2.28E+00 4.02E-04 +/- 3.24E-05
M 8	126.04	2.43E+00	+/- 2.21E-01	2.25E+00 4.00E-04 +/- 2.38E-05
m 9	129.97	1.36E+01	+/- 5.96E-01	2.24E+00 3.99E-04 +/- 2.64E-05
10	148.57	5.85E-01	+/- 3.44E-01	2.19E+00 3.97E-04 +/- 4.23E-05
11	204.18	5.55E-01	+/- 2.81E-01	2.06E+00 3.89E-04 +/- 4.47E-05
12	208.68	2.57E+00	+/- 3.78E-01	2.05E+00 3.88E-04 +/- 4.34E-05
13	256.39	4.06E-01	+/- 1.68E-01	1.96E+00 3.74E-04 +/- 2.76E-05
M 14	264.95	1.73E-01	+/- 9.46E-02	1.94E+00 3.71E-04 +/- 2.51E-05
m 15	268.37	2.58E-01	+/- 1.26E-01	1.94E+00 3.70E-04 +/- 2.42E-05
16	300.10	9.52E-01	+/- 1.84E-01	1.91E+00 3.57E-04 +/- 1.80E-05
17	311.90	3.51E-01	+/- 1.84E-01	1.90E+00 3.53E-04 +/- 1.69E-05
M 18	333.35	1.78E+00	+/- 2.14E-01	1.88E+00 3.43E-04 +/- 1.63E-05
m 19	336.27	5.79E-01	+/- 1.10E-01	1.88E+00 3.42E-04 +/- 1.63E-05
20	341.88	1.01E+00	+/- 2.01E-01	1.88E+00 3.40E-04 +/- 1.64E-05
21	345.70	1.21E+00	+/- 1.67E-01	1.87E+00 3.38E-04 +/- 1.66E-05
22	375.73	3.07E+00	+/- 3.35E-01	1.85E+00 3.25E-04 +/- 1.79E-05
M 23	380.95	1.02E+00	+/- 1.49E-01	1.84E+00 3.23E-04 +/- 1.81E-05
m 24	383.45	7.13E-01	+/- 1.12E-01	1.84E+00 3.21E-04 +/- 1.82E-05
25	393.60	1.73E+00	+/- 1.69E-01	1.83E+00 3.17E-04 +/- 1.87E-05
26	400.66	2.18E-01	+/- 1.00E-01	1.83E+00 3.14E-04 +/- 1.90E-05
27	413.70	4.79E+00	+/- 2.20E-01	1.82E+00 3.08E-04 +/- 1.94E-05

28	423.34	2.16E-01	+/-	9.84E-02	1.81E+00	3.04E-04	+/-	1.97E-05
29	452.05	5.34E-01	+/-	8.03E-02	1.78E+00	2.92E-04	+/-	2.00E-05
30	662.42	1.51E-01	+/-	5.98E-02	1.62E+00	2.15E-04	+/-	1.30E-05
31	722.01	2.10E-01	+/-	4.30E-02	1.59E+00	1.97E-04	+/-	1.08E-05
32	1001.03	4.38E-02	+/-	1.96E-02	1.48E+00	1.39E-04	+/-	6.19E-06
33	1112.12	5.25E-02	+/-	2.50E-02	1.45E+00	1.23E-04	+/-	5.40E-06
34	2236.00	1.00E+02	+/-	1.50E+00	1.32E+00	5.79E-05	+/-	3.30E-05

Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 113.57 sec Elapsed Real Time: 115.00 sec

TRANSMISSION		RESULTS
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.166 +/- 0.0066
SE-75	264.65	0.000 +/- 0.0000	0.222 +/- 0.0049
SE-75	279.53	0.000 +/- 0.0000	0.224 +/- 0.0054
SE-75	400.65	0.000 +/- 0.0000	0.261 +/- 0.0071

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.26	4.96E-01 +/- 1.32E-01	2.85E+00	2.71E-09 +/- 1.64E-08
2	49.86	2.33E+00 +/- 7.00E-01	2.24E+00	2.00E-06 +/- 5.10E-06
3	60.16	1.21E+02 +/- 1.91E+00	2.10E+00	1.30E-05 +/- 2.08E-05
4	99.37	7.24E+00 +/- 4.73E-01	1.91E+00	2.33E-04 +/- 5.60E-05
5	103.76	5.93E+00 +/- 3.99E-01	1.90E+00	2.67E-04 +/- 4.92E-05
6	111.67	9.45E-01 +/- 3.74E-01	1.88E+00	3.25E-04 +/- 3.52E-05
M 7	126.01	1.44E+00 +/- 1.79E-01	1.85E+00	4.17E-04 +/- 2.46E-05
m 8	129.95	7.85E+00 +/- 4.58E-01	1.84E+00	4.37E-04 +/- 2.81E-05
9	144.96	5.35E-01 +/- 2.60E-01	1.82E+00	4.98E-04 +/- 4.73E-05
10	204.23	9.05E-01 +/- 1.82E-01	1.74E+00	5.35E-04 +/- 5.73E-05
11	208.64	4.12E-01 +/- 3.07E-01	1.74E+00	5.31E-04 +/- 5.53E-05
12	311.90	2.60E-01 +/- 1.48E-01	1.65E+00	3.88E-04 +/- 1.81E-05
M 13	333.53	5.85E-01 +/- 1.14E-01	1.64E+00	3.62E-04 +/- 1.72E-05
m 14	336.48	4.44E-01 +/- 9.52E-02	1.63E+00	3.59E-04 +/- 1.72E-05
15	345.71	5.72E-01 +/- 1.35E-01	1.63E+00	3.49E-04 +/- 1.72E-05
16	375.71	1.85E+00 +/- 2.10E-01	1.61E+00	3.19E-04 +/- 1.78E-05
M 17	380.98	3.36E-01 +/- 8.27E-02	1.61E+00	3.14E-04 +/- 1.80E-05
m 18	383.52	3.54E-01 +/- 8.27E-02	1.61E+00	3.12E-04 +/- 1.80E-05
19	393.40	6.88E-01 +/- 1.02E-01	1.60E+00	3.03E-04 +/- 1.82E-05
20	413.70	1.99E+00 +/- 1.45E-01	1.59E+00	2.87E-04 +/- 1.84E-05
21	423.25	7.86E-02 +/- 5.60E-02	1.58E+00	2.81E-04 +/- 1.84E-05
22	452.18	1.37E-01 +/- 5.06E-02	1.56E+00	2.62E-04 +/- 1.82E-05
23	662.42	1.54E-01 +/- 4.58E-02	1.45E+00	1.82E-04 +/- 1.13E-05

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Instrument ID: SGS Can ID: LL85001765 Count Sequence #: 2506

24 722.01 8.58E-02 +/- 4.13E-02 1.43E+00 1.70E-04 +/- 9.57E-06
25 1408.01 8.78E-03 +/- 8.78E-03 1.29E+00 1.08E-04 +/- 7.12E-06
26 2236.00 1.00E+02 +/- 1.51E+00 1.23E+00 6.48E-05 +/- 3.54E-05

Segment: 13 Detector: DET01 (# 1) Position: 13

Elapsed Live Time: 113.90 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.544 +/- 0.0154
SE-75	264.65	0.000 +/- 0.0000	0.602 +/- 0.0129
SE-75	279.53	0.000 +/- 0.0000	0.603 +/- 0.0136
SE-75	400.65	0.000 +/- 0.0000	0.640 +/- 0.0155

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.03	4.15E-01 +/- 1.42E-01	1.52E+00	1.72E-08 +/- 1.12E-07
2	60.16	7.70E+01 +/- 1.36E+00	1.32E+00	2.29E-05 +/- 3.88E-05
3	99.33	3.51E+00 +/- 3.87E-01	1.27E+00	2.49E-04 +/- 6.32E-05
M 4	115.54	7.56E-01 +/- 2.91E-01	1.26E+00	3.51E-04 +/- 2.95E-05
m 5	125.83	6.89E-01 +/- 1.23E-01	1.25E+00	4.02E-04 +/- 2.39E-05
6	130.03	4.02E+00 +/- 3.38E-01	1.25E+00	4.19E-04 +/- 2.78E-05
7	204.08	4.86E-01 +/- 1.30E-01	1.22E+00	4.91E-04 +/- 5.54E-05
8	244.70	1.88E-01 +/- 1.10E-01	1.21E+00	4.50E-04 +/- 3.61E-05
9	311.90	3.15E-01 +/- 1.08E-01	1.20E+00	3.74E-04 +/- 1.79E-05
10	333.55	6.37E-01 +/- 1.19E-01	1.19E+00	3.53E-04 +/- 1.73E-05
11	345.78	5.56E-01 +/- 9.55E-02	1.19E+00	3.41E-04 +/- 1.75E-05
12	375.66	7.18E-01 +/- 1.42E-01	1.18E+00	3.16E-04 +/- 1.85E-05
13	393.61	3.03E-01 +/- 7.57E-02	1.18E+00	3.03E-04 +/- 1.90E-05
14	400.66	1.10E-01 +/- 5.83E-02	1.18E+00	2.98E-04 +/- 1.92E-05
15	413.70	8.46E-01 +/- 9.98E-02	1.18E+00	2.89E-04 +/- 1.94E-05
16	452.31	1.35E-01 +/- 5.37E-02	1.17E+00	2.67E-04 +/- 1.94E-05
17	662.42	1.18E-01 +/- 3.58E-02	1.14E+00	1.92E-04 +/- 1.21E-05
18	722.01	4.91E-02 +/- 3.12E-02	1.13E+00	1.80E-04 +/- 1.01E-05
19	1001.03	4.33E-02 +/- 3.78E-02	1.11E+00	1.41E-04 +/- 6.24E-06
20	2236.00	1.00E+02 +/- 1.50E+00	1.07E+00	5.36E-05 +/- 3.03E-05

Segment: 14 Detector: DET01 (# 1) Position: 14

Elapsed Live Time: 114.20 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.844 +/- 0.0218
SE-75	264.65	0.000 +/- 0.0000	0.870 +/- 0.0186
SE-75	279.53	0.000 +/- 0.0000	0.866 +/- 0.0192
SE-75	400.65	0.000 +/- 0.0000	0.871 +/- 0.0207

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	50.23	1.29E+00 +/- 3.94E-01	1.09E+00	4.71E-05 +/- 1.15E-04
2	60.16	2.67E+01 +/- 7.04E-01	1.08E+00	9.58E-05 +/- 1.50E-04
3	99.49	1.39E+00 +/- 2.38E-01	1.07E+00	3.19E-04 +/- 7.49E-05
4	103.72	6.90E-01 +/- 2.19E-01	1.07E+00	3.38E-04 +/- 6.14E-05
M 5	111.70	4.94E-01 +/- 2.36E-01	1.07E+00	3.69E-04 +/- 3.92E-05
M 6	125.97	3.85E-01 +/- 8.58E-02	1.07E+00	4.12E-04 +/- 2.40E-05
m 7	130.03	1.35E+00 +/- 1.84E-01	1.07E+00	4.22E-04 +/- 2.68E-05
8	413.70	2.65E-01 +/- 6.51E-02	1.05E+00	2.98E-04 +/- 1.80E-05
9	964.13	2.71E-02 +/- 1.95E-02	1.03E+00	1.41E-04 +/- 6.33E-06
10	2236.00	1.00E+02 +/- 1.50E+00	1.02E+00	7.64E-05 +/- 4.15E-05

Segment: 15 Detector: DET01 (# 1) Position: 15

Elapsed Live Time: 114.34 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.908 +/- 0.0239
SE-75	264.65	0.000 +/- 0.0000	0.913 +/- 0.0196
SE-75	279.53	0.000 +/- 0.0000	0.908 +/- 0.0202
SE-75	400.65	0.000 +/- 0.0000	0.918 +/- 0.0218

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.15	4.96E+00 +/-	3.17E-01	1.05E+00 1.23E-05 +/- 2.02E-05
2	413.70	7.95E-02 +/-	4.25E-02	1.03E+00 2.62E-04 +/- 1.65E-05
3	443.98	7.58E-02 +/-	3.61E-02	1.03E+00 2.45E-04 +/- 1.65E-05
4	867.39	2.02E-02 +/-	1.85E-02	1.02E+00 1.44E-04 +/- 6.82E-06
5	1001.03	8.66E-03 +/-	8.66E-03	1.02E+00 1.29E-04 +/- 5.86E-06
6	1085.91	3.46E-02 +/-	1.73E-02	1.02E+00 1.21E-04 +/- 5.37E-06
7	2236.00	1.00E+02 +/-	1.50E+00	1.01E+00 3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01 (# 1)

Position: 16

Elapsed Live Time: 114.37 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.918 +/- 0.0242
SE-75	264.65	0.000 +/- 0.0000	0.943 +/- 0.0203
SE-75	279.53	0.000 +/- 0.0000	0.943 +/- 0.0210
SE-75	400.65	0.000 +/- 0.0000	0.955 +/- 0.0227

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.13	2.23E+00 +/-	2.28E-01	1.04E+00 5.61E-05 +/- 2.41E-05
2	311.90	6.74E-02 +/-	4.66E-02	1.02E+00 2.22E-04 +/- 1.24E-05
3	400.66	8.21E-02 +/-	4.62E-02	1.02E+00 1.84E-04 +/- 9.10E-06
4	867.39	3.53E-02 +/-	2.78E-02	1.01E+00 8.96E-05 +/- 5.22E-06
5	964.13	2.54E-02 +/-	2.09E-02	1.01E+00 8.21E-05 +/- 4.35E-06
6	1001.03	2.60E-02 +/-	1.50E-02	1.01E+00 7.97E-05 +/- 4.05E-06
7	2236.00	1.00E+02 +/-	1.50E+00	1.01E+00 6.28E-05 +/- 1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: LL85001765
Peak Locate Performed on: 12-13-07 4:35:19 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.65	0.1844	31.99	13.21
2	100.72	0.1408	50.03	16.87
3	121.00	0.0342	60.16	372.05
4	199.37	0.0674	99.35	90.20
5	224.07	0.1040	111.70	39.62
6	232.15	0.1295	115.74	16.80
7	260.66	0.0643	130.00	100.22
8	290.27	0.1913	144.80	13.85
9	299.25	0.1781	149.29	15.86
10	323.65	0.2012	161.49	7.44
11	344.89	0.2434	172.11	8.31
12	360.44	0.2499	179.89	6.97
13	380.93	0.2479	190.13	7.66
14	393.78	0.2242	196.55	8.88
15	409.08	0.1108	204.21	34.96
16	418.03	0.0866	208.68	56.28
17	512.90	0.2176	256.11	8.89
18	596.78	0.2863	298.06	5.26
19	625.76	0.1904	312.54	11.20
20	667.49	0.1099	333.44	31.03
21	673.91	0.1798	336.38	14.70
22	684.68	0.2464	342.15	8.34
23	692.03	0.1078	345.70	35.33
24	738.61	0.1669	368.97	12.32
25	752.11	0.0809	375.72	59.78
26	762.11	0.1441	380.89	21.74
27	767.92	0.1578	383.49	18.53
28	787.88	0.1091	393.61	32.38
29	829.56	0.0798	414.44	54.64
30	847.23	0.1583	423.28	14.99
31	905.06	0.1409	452.19	19.83
32	1024.11	0.2428	511.72	5.32
33	1119.21	0.2753	559.27	5.28
34	1327.20	0.1762	663.27	11.70
35	1446.14	0.2171	722.73	7.66
36	4473.15	0.0263	2236.24	412.09

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
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Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: LL85001765
 Peak Analysis Performed on: 12-13-07 4:35:20 PM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Continuum Counts
1	61-	71	64.65	31.99	1.58E+03	84.96	2.04E+03
2	94-	105	100.72	50.03	1.13E+04	360.02	4.45E+04
3	114-	127	121.00	60.16	2.48E+05	611.97	4.56E+04
4	194-	203	199.37	99.35	1.41E+04	277.27	2.79E+04
5	217-	227	224.07	111.70	3.19E+03	186.18	1.30E+04
6	227-	238	232.15	115.74	3.16E+02	221.85	1.78E+04
7	256-	267	260.66	130.00	1.43E+04	205.07	1.06E+04
8	283-	293	290.27	144.80	1.91E+02	120.74	5.96E+03
9	297-	303	299.25	149.29	5.79E+02	88.33	3.75E+03
10	316-	328	323.65	161.49	5.59E+02	128.68	6.05E+03
11	338-	349	344.89	172.11	6.58E+02	112.49	4.78E+03
12	358-	367	360.44	179.89	2.69E+02	92.32	3.62E+03
13	375-	384	380.93	190.13	2.09E+02	90.88	3.56E+03
14	391-	400	393.78	196.55	4.73E+02	87.98	3.20E+03
15	403-	413	409.08	204.21	7.43E+02	118.88	5.35E+03
16	413-	425	418.03	208.68	2.79E+03	143.20	6.23E+03
17	505-	520	512.90	256.11	3.73E+02	88.72	2.49E+03
18	589-	604	596.78	298.06	2.89E+02	77.72	1.91E+03
19	618-	629	625.76	312.54	4.20E+02	59.31	1.24E+03
M 20	659-	681	667.54	333.44	2.26E+03	80.49	9.58E+02
m 21	659-	681	673.42	336.38	7.38E+02	41.48	1.11E+03
M 22	681-	699	684.96	342.15	2.76E+02	26.97	6.79E+02
m 23	681-	699	692.07	345.70	2.20E+03	80.36	6.46E+02
24	730-	746	738.61	368.97	1.98E+02	79.41	1.85E+03
25	746-	759	752.11	375.72	4.04E+03	111.81	2.80E+03
M 26	759-	775	762.45	380.89	9.64E+02	49.58	5.67E+02
m 27	759-	775	767.64	383.49	9.09E+02	45.83	4.12E+02
28	780-	795	787.88	393.61	2.06E+03	61.22	5.60E+02
29	821-	837	829.56	414.44	5.38E+03	82.20	4.40E+02
30	843-	852	847.23	423.28	2.93E+02	32.89	3.36E+02
31	897-	912	905.06	452.19	6.22E+02	38.83	2.95E+02
32	1016-	1032	1024.11	511.72	2.38E+02	29.97	2.11E+02
33	1116-	1127	1119.21	559.27	3.97E+01	17.23	9.93E+01
34	1322-	1335	1327.20	663.27	2.31E+02	22.90	1.06E+02
35	1442-	1454	1446.14	722.73	1.31E+02	18.09	7.33E+01
36	4464-	4483	4473.15	2236.24	1.83E+05	429.35	2.58E+02

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: LL85001765
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	0.996	2236.00*	100.00	7.913E+02	1.759E+02
Np-237	0.738	300.10	6.63		
		311.90*	38.60	1.147E+00	1.622E-01
Pu-239	0.961	413.70*	0.00	4.622E+05	1.108E+04
Pu-239A	0.966	129.29*	0.01	2.522E+05	6.884E+03
Am-241	0.950	662.42*	0.00	1.059E+05	1.053E+04
Am-241D	0.963	722.01*	0.00	1.304E+05	1.808E+04
Pu-241	0.963	148.57*	0.00	3.050E+05	4.689E+04

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-13-07 4:35:19 PM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	31.99	1.3840E+01	5.38
2	50.03	9.8706E+01	3.20
3	60.16	2.1714E+03	0.36
4	99.35	1.2354E+02	1.98
5	111.70	2.7900E+01	5.85
6	115.74	2.7677E+00	70.19
8	144.80	1.6688E+00	63.36
10	161.49	4.8924E+00	23.03
11	172.11	5.7643E+00	17.09
12	179.89	2.3589E+00	34.27
13	190.13	1.8264E+00	43.57
14	196.55	4.1456E+00	18.59
15	204.21	6.5055E+00	16.00
16	208.68	2.4460E+01	5.13
17	256.11	3.2643E+00	23.80
18	298.06	2.5264E+00	26.94
M 20	333.44	1.9762E+01	3.58
m 21	336.38	6.4611E+00	5.63
M 22	342.15	2.4127E+00	9.79
m 23	345.70	1.9231E+01	3.67
24	368.97	1.7307E+00	40.18
25	375.72	3.5354E+01	2.78
M 26	380.89	8.4426E+00	5.15
m 27	383.49	7.9618E+00	5.05
28	393.61	1.8078E+01	2.98
30	423.28	2.5616E+00	11.24
31	452.19	5.4457E+00	6.25
32	511.72	2.0820E+00	12.61
33	559.27	3.4747E-01	43.42

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)					
Pulser	8.60E+02	+/-	1.26E+02	1.92E-02	+/-	2.82E-03		
SE-75	<	9.72E-02	+/-	6.61E-03	<	2.17E-06	+/-	1.48E-07
EU-152x	<	2.10E-01	+/-	1.55E-02	<	4.69E-06	+/-	3.46E-07
U-233	<	6.03E+03	+/-	3.18E+02	<	1.35E-01	+/-	7.09E-03
U-235	<	1.41E-01	+/-	1.77E-02	<	3.15E-06	+/-	3.95E-07
Np-237	1.22E+00	+/-	1.63E-01	2.73E-05	+/-	3.63E-06		
Pu-238	3.76E+03	+/-	2.50E+03	8.38E-02	+/-	5.58E-02		
U-238	6.14E+00	+/-	1.56E+00	1.37E-04	+/-	3.49E-05		
Pu-239	4.60E+05	+/-	1.07E+04	1.03E+01	+/-	2.38E-01		
Pu-239A	3.16E+05	+/-	7.23E+03	7.06E+00	+/-	1.61E-01		
Am-241	1.16E+05	+/-	9.86E+03	2.58E+00	+/-	2.20E-01		
Am-241D	1.22E+05	+/-	1.42E+04	2.72E+00	+/-	3.17E-01		
Pu-241	2.50E+05	+/-	4.97E+04	5.57E+00	+/-	1.11E+00		

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

Np-237	1.73E-03	+/-	2.31E-04
Pu-238	2.19E-04	+/-	1.46E-04
U-238	1.83E+01	+/-	4.66E+00
Pu-239	7.41E+00	+/-	1.72E-01
Pu-239A	5.09E+00	+/-	1.16E-01
Am-241	3.38E-02	+/-	2.88E-03
Pu-241	2.41E-03	+/-	4.81E-04

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	7.91E+02 +/-	1.76E+02	1.77E-02 +/-	3.93E-03
SE-75	< 4.77E-01 +/-	4.21E-03	< 1.07E-05 +/-	9.39E-08
EU-152x	< 5.76E-01 +/-	1.02E-02	< 1.29E-05 +/-	2.27E-07
U-233	< 3.53E+04 +/-	7.41E+02	< 7.87E-01 +/-	1.65E-02
U-235	< 6.94E-01 +/-	1.55E-02	< 1.55E-05 +/-	3.45E-07
Np-237	1.15E+00 +/-	1.62E-01	2.56E-05 +/-	3.62E-06
Pu-238	< 5.29E+04 +/-	9.64E+02	< 1.18E+00 +/-	2.15E-02
U-238	< 1.43E+01 +/-	2.26E-01	< 3.19E-04 +/-	5.04E-06
Pu-239	4.62E+05 +/-	1.11E+04	1.03E+01 +/-	2.47E-01
Pu-239A	2.52E+05 +/-	6.88E+03	5.63E+00 +/-	1.54E-01
Am-241	1.06E+05 +/-	1.05E+04	2.36E+00 +/-	2.35E-01
Am-241D	1.30E+05 +/-	1.81E+04	2.91E+00 +/-	4.04E-01
Pu-241	3.05E+05 +/-	4.69E+04	6.81E+00 +/-	1.05E+00

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

Np-237	1.63E-03	+/-	2.30E-04
Pu-239	7.44E+00	+/-	1.78E-01
Pu-239A	4.06E+00	+/-	1.11E-01
Am-241	3.09E-02	+/-	3.07E-03
Pu-241	2.95E-03	+/-	4.53E-04

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.977 +/- 20.1645
Matrix Longitudinal Ratio: 0.960 +/- 0.0975

Source Vertical Ratio: 0.629 +/- 0.3126
Matrix Vertical Ratio: 0.876 +/- 0.0248

NUDS could not find the transmission peak in one radial segment.

Radioassay Data Sheet
Procedure ID & Rev: WCP-55 03/07/2002

Wed Dec 19 03:52:55 2007
Software Version: GWAS v2.3bGEN

Drum ID	:	LL85234270	Gross Weight (kg)	:	51.0
Sequence Number	:	2504	Fill Height (%)	:	100.0
Assay Date	:	12/13/07 13:00:47	Density (g/cc)	:	0.13
Batch Number	:		Net Weight (kg)	:	27.20
Site ID	:		Waste Matrix Code	:	
			TRUCON	:	

	Errors at 1.00 Sigma		
TRU Alpha Activity Concentration:	1.10e-04	+/-	1.49e-05 Ci/g
Total Pu-239 Equiv Activity:	3.09e+00	+/-	4.06e-01 Ci
Total Pu-239 Fissile Gram Equiv:	3.59e+01	+/-	6.32e+00 g
Decay Heat:	9.49e-02	+/-	1.28e-02 W
Total Pu Mass:	3.77e+01	+/-	6.33e+00 g
TMU:	17.91%		
Waste Classification:	TRU		

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
Pu-238	1.26e-02	1.00e+01
Pu-239	9.35e+01	1.06e-01
Pu-240	6.31e+00	1.56e+00
Pu-241	1.33e-01	1.64e+00
Pu-242	2.84e-02	1.00e+01
Am-241	3.02e-01	1.08e+00
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	1.09e+00	2.62e+01

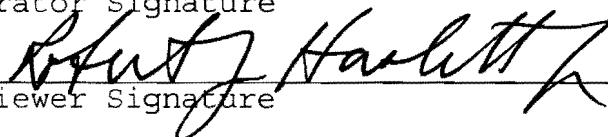
Activity Errors

Isotope	1.00 Sigma Mass (g)	Alpha Activity/ Error/Isotope Mass (g)	1.00 Sigma Isotope (Ci)	Error/Isotope (Ci)	MDA (g)
Pu-238	4.74e-03	9.74e-04	8.12e-02	1.67e-02	1.10e-03
Pu-239	3.53e+01	6.32e+00	2.19e+00	3.92e-01	1.62e-01
Pu-240	2.38e+00	4.28e-01	5.40e-01	9.72e-02	0.00e+00
Pu-241	5.04e-02	9.06e-03	5.21e+00	9.37e-01	2.02e-03
Pu-242	1.07e-02	2.20e-03	4.21e-05	8.64e-06	0.00e+00
Am-241	5.30e-02	9.88e-03	1.81e-01	3.38e-02	3.43e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	3.22e-03	6.36e-04	2.27e-06	4.48e-07	7.51e-04
U-235	4.12e-01	1.31e-01	8.92e-07	2.83e-07	1.29e-01
*U-238	<LLD	0.00e+00	0.00e+00	0.00e+00	2.12e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	1.15e+00
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Date



Reviewer Signature

12-19-07
Date

Software Version: GWAS v2.3bGEN
 Counter Number: SGS
 Data Review for Container: LL85234270
 Item Description Code: \Count Type: DEBRIS
 Sequence Number: 2504
 Assayed on: 12/13/07 13:00:47
 Report Generated: 12/19/07 15:52:39
 AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

REVIEW Pu-240 Wt Pct -2 Sigma error <6.11> greater than <5.87> Review MGA R
 Pu-240 Wt Pct error <1.56> is within limits
 Pu-238 Wt Pct error <10.01> is within limits
 QFIT <1.04> is within limits

REVIEW MGAERR13: Efficiency curvature boundary reached OK

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.131> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

REVIEW Pu-239/Pu-239a ratio <3.99e+00> > <2.50e+00> OK

Section 4 - PULSER REVIEW

DEAD TIME percentage <0.71> is acceptable in Segment 1
 Pulser value <0.98> is within range in Segment 1
 DEAD TIME percentage <0.74> is acceptable in Segment 2
 Pulser value <0.98> is within range in Segment 2
 DEAD TIME percentage <0.80> is acceptable in Segment 3
 Pulser value <0.99> is within range in Segment 3
 DEAD TIME percentage <0.93> is acceptable in Segment 4
 Pulser value <0.99> is within range in Segment 4
 DEAD TIME percentage <1.44> is acceptable in Segment 5
 Pulser value <0.99> is within range in Segment 5
 DEAD TIME percentage <4.57> is acceptable in Segment 6
 Pulser value <0.99> is within range in Segment 6
 DEAD TIME percentage <5.77> is acceptable in Segment 7
 Pulser value <1.00> is within range in Segment 7
 DEAD TIME percentage <3.42> is acceptable in Segment 8
 Pulser value <0.99> is within range in Segment 8
 DEAD TIME percentage <1.11> is acceptable in Segment 9
 Pulser value <0.99> is within range in Segment 9
 DEAD TIME percentage <0.81> is acceptable in Segment 10
 Pulser value <0.99> is within range in Segment 10
 DEAD TIME percentage <0.69> is acceptable in Segment 11
 Pulser value <0.99> is within range in Segment 11
 DEAD TIME percentage <0.66> is acceptable in Segment 12
 Pulser value <0.99> is within range in Segment 12
 DEAD TIME percentage <0.63> is acceptable in Segment 13
 Pulser value <0.99> is within range in Segment 13
 DEAD TIME percentage <0.60> is acceptable in Segment 14
 Pulser value <0.98> is within range in Segment 14
 DEAD TIME percentage <0.60> is acceptable in Segment 15
 Pulser value <0.98> is within range in Segment 15
 DEAD TIME percentage <0.57> is acceptable in Segment 16

Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
Transmission results are acceptable in Segment 2
Transmission results are acceptable in Segment 3
Transmission results are acceptable in Segment 4
Transmission results are acceptable in Segment 5
Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

All energy peaks within <3.00e+00> RCHISQ limit

Section 7 - FGE MASS REVIEW

FGE Mass <42.19> is within limits

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

Am-241 ratio <666.11> is above lower limit <200.00>
Np-237 ratio <10959.14> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <35.29> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Am-241D > Am-241A: Calculation not performed

OK, Checked.

Independent Reviewer:



Date: _____

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS

Data Review for Container: LL85234270

Item Description Code:

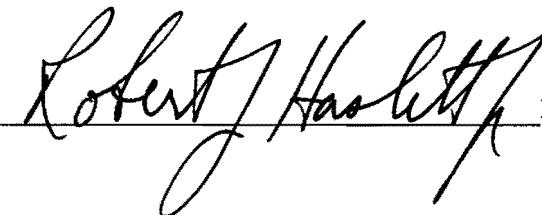
Sequence Number: 2504

Assayed on: 12/13/07 13:00:47

AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA Pu-240 Wt Pct -2 Sigma error is greater than upper limit. MGAERR13	OK OK
SECTION 3 - SELF-ABSORPTION Pu-239/Pu-239a ratio is greater than upper limit.	OK.
SECTION 9 - IDC COUNT TYPE IDC is not available.	N/A

Technical Reviewer:

 Robert Haslett

Date: 12-19-07

M G A R E P O R T

Report generated on:

12-19-07 3:32:18 PM

MGA version: MGA V9.5 CI

Spectrum ID: 11202504.CNF Sens : 30.0% LT: 55.4 Mins DT: 2.87
Measurement date: 12-13-07 Declared date: 12-13-07

Sample ID: LL85234270 Detector: Total counts: 2.981E+06

Pu g/cm² = 0.5000 Cd g/cm² = 1.8000 FWHM at 122 keV = 613 eV
QFIT = 1.04 FWHM at 208 keV = 737 eV
NQFIT = 1.00

Isotope	Relative to Pu-239	%*	%	Relative to Pu-241	%*	Isotope analysis at					
						Meas. date	Decl. date	% weight	% Err	% weight	% Err
Pu-238	0.000134	10.0	10.0	0.0942	9.9	0.01257	10.01	0.01257	10.01		
Pu-239	1.000000	0.0	0.8	700.7347	1.7	93.51575	0.11	93.51575	0.11		
Pu-240	0.067473	1.7	1.6	47.2808	2.1	6.30980	1.56	6.30980	1.56		
Pu-241	0.001427	1.7	1.5	1.0000	0.0	0.13345	1.64	0.13345	1.64		
Pu-242	(New alg.)			0.2129 (10)		0.02842 (10)		0.02842 (10)			
Am-241	0.003229	1.1	0.9	2.2630	1.7	0.30200	1.08	0.30200	1.08		
U-235	0.011686	26.1	26.2			1.09284	26.16	1.09284	26.16		

Pu-240 effective (meas. date) = 6.389 +/- 1.71%
Am-241 separated about 24.498 +/- 0.348 years ago
Am/Pu-241 weight ratio = 2.26297 +/- 1.74%

Messages :

Lead x-rays detected.
Efficiency curvature boundary reached.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Gamma Waste Assay

Sample Information

File Name: C:\WAS\DATA\2600\11102504.S11
Sample ID: LL85234270 Count Sequence Number: 2504
Assay Start: 12-13-07 1:00:48 PM
Description 1:
Description 2:
Location:
Comment:
Waste Type:
Weight: Gross: 51000.0 g Net: 27200.0 g
Density: 0.131 g /ml
Container Type: 55 Gal Galv 23.8
Container: Volume: 208000. ml Full: 100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: 55 Gal Galv 23.8
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps
Geometric Correction Factor(SWCONTGCF): 0.760
Date of efficiency calibration approval: 8-27-2003 2:05:34 PM
Mu Factors response file: Lucite response
Transmission Calib. Time: 12-10-2007 3:51:07 PM 28849

Reviewed by:



Date: 12-19-07

Segment Results

Segment: 1 Detector: DET01 (# 1) Position: 1

Elapsed Live Time: 114.18 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.487 +/- 0.0140
SE-75	264.65	0.000 +/- 0.0000	0.545 +/- 0.0117
SE-75	279.53	0.000 +/- 0.0000	0.549 +/- 0.0124
SE-75	400.65	0.000 +/- 0.0000	0.596 +/- 0.0145

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.17	5.23E-01 +/- 2.37E-01	1.39E+00	6.35E-06 +/- 1.17E-05
2	129.29	4.56E-01 +/- 2.49E-01	1.30E+00	3.01E-04 +/- 2.13E-05
3	311.90	1.60E-01 +/- 9.63E-02	1.23E+00	2.76E-04 +/- 1.41E-05
4	2236.00	1.00E+02 +/- 1.49E+00	1.09E+00	3.40E-05 +/- 2.15E-05

Segment: 2 Detector: DET01 (# 1) Position: 2

Elapsed Live Time: 114.15 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.308 +/- 0.0094
SE-75	264.65	0.000 +/- 0.0000	0.383 +/- 0.0082
SE-75	279.53	0.000 +/- 0.0000	0.395 +/- 0.0090
SE-75	400.65	0.000 +/- 0.0000	0.433 +/- 0.0108

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.90	3.00E-01 +/-	1.22E-01	2.13E+00 1.84E-05 +/- 1.15E-04
2	60.16	9.15E-01 +/-	1.90E-01	1.67E+00 1.33E-04 +/- 2.14E-04
3	400.66	9.54E-02 +/-	5.94E-02	1.35E+00 2.97E-04 +/- 1.83E-05
4	511.96	2.20E-01 +/-	6.07E-02	1.31E+00 2.38E-04 +/- 1.72E-05
5	662.42	2.70E-02 +/-	1.98E-02	1.27E+00 1.86E-04 +/- 1.15E-05
6	2236.00	1.00E+02 +/-	1.49E+00	1.14E+00 9.73E-05 +/- 5.41E-05

Segment: 3

Detector: DET01 (# 1)

Position: 3

Elapsed Live Time: 114.08 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.434 +/- 0.0122
SE-75	264.65	0.000 +/- 0.0000	0.510 +/- 0.0109
SE-75	279.53	0.000 +/- 0.0000	0.524 +/- 0.0118
SE-75	400.65	0.000 +/- 0.0000	0.558 +/- 0.0136

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.66	3.95E-01 +/-	1.36E-01	1.76E+00 3.19E-06 +/- 3.10E-06
2	60.08	3.27E+00 +/-	3.66E-01	1.46E+00 8.03E-05 +/- 2.78E-05
3	662.42	3.24E-02 +/-	2.59E-02	1.18E+00 1.95E-04 +/- 9.62E-06
4	722.01	5.12E-02 +/-	2.49E-02	1.17E+00 1.79E-04 +/- 8.87E-06
5	778.90	4.63E-02 +/-	2.74E-02	1.17E+00 1.66E-04 +/- 8.11E-06
6	1085.91	2.59E-02 +/-	1.50E-02	1.14E+00 1.28E-04 +/- 4.75E-06
7	1112.12	1.73E-02 +/-	1.22E-02	1.14E+00 1.27E-04 +/- 4.65E-06
8	1333.75	8.64E-02 +/-	2.73E-02	1.12E+00 1.17E-04 +/- 5.99E-06
9	2236.00	1.00E+02 +/-	1.49E+00	1.10E+00 1.32E-04 +/- 3.24E-05

Segment: 4

Detector: DET01 (# 1)

Position: 4

Elapsed Live Time: 113.93 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.381 +/- 0.0112
SE-75	264.65	0.000 +/- 0.0000	0.479 +/- 0.0102
SE-75	279.53	0.000 +/- 0.0000	0.485 +/- 0.0110
SE-75	400.65	0.000 +/- 0.0000	0.533 +/- 0.0131

PEAK ANALYSIS RESULTS						
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency		
1	31.97	5.38E-01 +/- 1.48E-01	1.89E+00	1.15E-07 +/-	7.04E-07	
2	59.99	5.90E+00 +/- 4.44E-01	1.54E+00	3.56E-05 +/-	5.71E-05	
3	185.71	4.56E-01 +/- 3.40E-01	1.36E+00	4.90E-04 +/-	5.73E-05	
4	413.70	8.52E-02 +/- 5.26E-02	1.25E+00	2.94E-04 +/-	1.78E-05	
5	722.01	7.18E-02 +/- 3.15E-02	1.19E+00	1.77E-04 +/-	9.59E-06	
6	867.39	2.60E-02 +/- 1.50E-02	1.17E+00	1.52E-04 +/-	7.25E-06	
7	1408.01	8.65E-03 +/- 8.65E-03	1.13E+00	1.06E-04 +/-	7.05E-06	
8	2236.00	1.00E+02 +/- 1.50E+00	1.11E+00	7.00E-05 +/-	3.84E-05	

Segment: 5

Detector: DET01 (# 1)

Position: 5

Elapsed Live Time: 113.34 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.277 +/- 0.0095
SE-75	264.65	0.000 +/- 0.0000	0.361 +/- 0.0078
SE-75	279.53	0.000 +/- 0.0000	0.364 +/- 0.0084
SE-75	400.65	0.000 +/- 0.0000	0.406 +/- 0.0103

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.98	1.56E+00 +/-	2.37E-01	2.24E+00 2.71E-07 +/- 1.79E-06
2	60.06	1.60E+01 +/-	6.51E-01	1.74E+00 4.75E-05 +/- 8.19E-05
3	99.25	2.82E+00 +/-	7.31E-01	1.62E+00 2.77E-04 +/- 7.13E-05
4	104.20	1.40E+00 +/-	5.86E-01	1.61E+00 3.04E-04 +/- 5.76E-05
F 5	111.67	9.77E-01 +/-	5.74E-01	1.60E+00 3.41E-04 +/- 3.83E-05
F 6	129.93	3.38E+00 +/-	4.07E-01	1.57E+00 4.09E-04 +/- 2.72E-05
F 7	172.09	8.62E-01 +/-	4.84E-01	1.52E+00 4.67E-04 +/- 5.93E-05
F 8	204.15	6.73E-01 +/-	2.60E-01	1.49E+00 4.59E-04 +/- 5.30E-05
M 9	208.68	1.08E+00 +/-	3.22E-01	1.49E+00 4.56E-04 +/- 5.12E-05
M 10	333.52	1.03E+00 +/-	2.06E-01	1.41E+00 3.43E-04 +/- 1.67E-05
m 11	336.51	3.56E-01 +/-	1.13E-01	1.41E+00 3.41E-04 +/- 1.67E-05
12	345.67	9.84E-01 +/-	2.30E-01	1.40E+00 3.33E-04 +/- 1.69E-05
13	375.73	2.47E+00 +/-	2.60E-01	1.39E+00 3.11E-04 +/- 1.79E-05
M 14	380.80	4.87E-01 +/-	1.10E-01	1.39E+00 3.07E-04 +/- 1.81E-05
m 15	383.29	5.50E-01 +/-	1.15E-01	1.39E+00 3.06E-04 +/- 1.82E-05
16	393.43	9.50E-01 +/-	1.48E-01	1.38E+00 2.99E-04 +/- 1.85E-05
17	413.70	2.81E+00 +/-	2.02E-01	1.38E+00 2.86E-04 +/- 1.90E-05
18	423.17	2.21E-01 +/-	7.93E-02	1.37E+00 2.81E-04 +/- 1.91E-05
19	443.98	1.76E-01 +/-	7.11E-02	1.36E+00 2.69E-04 +/- 1.92E-05
20	451.97	3.14E-01 +/-	7.30E-02	1.36E+00 2.65E-04 +/- 1.91E-05
21	662.42	1.10E-01 +/-	4.86E-02	1.29E+00 1.90E-04 +/- 1.21E-05
22	778.90	2.45E-02 +/-	2.10E-02	1.26E+00 1.66E-04 +/- 8.62E-06
23	1112.12	2.45E-02 +/-	2.18E-02	1.21E+00 1.23E-04 +/- 5.54E-06
24	1408.01	8.72E-03 +/-	8.73E-03	1.19E+00 1.00E-04 +/- 6.78E-06
25	2236.00	1.00E+02 +/-	1.50E+00	1.15E+00 5.76E-05 +/- 3.29E-05

Segment: 6

Detector: DET01 (# 1)

Position: 6

Elapsed Live Time: 109.74 sec

Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.185 +/- 0.0083
SE-75	264.65	0.000 +/- 0.0000	0.280 +/- 0.0062
SE-75	279.53	0.000 +/- 0.0000	0.289 +/- 0.0070
SE-75	400.65	0.000 +/- 0.0000	0.324 +/- 0.0087

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.12	5.62E+00 +/-	4.79E-01	2.72E+00 4.82E-07 +/- 3.02E-06
2	50.03	1.96E+00 +/-	6.85E-01	2.14E+00 2.17E-05 +/- 5.60E-05
3	60.16	1.18E+02 +/-	1.95E+00	2.02E+00 6.08E-05 +/- 9.94E-05
4	99.34	4.14E+01 +/-	1.47E+00	1.84E+00 3.06E-04 +/- 7.50E-05
5	111.66	1.15E+01 +/-	1.05E+00	1.82E+00 3.68E-04 +/- 4.00E-05
6	116.34	4.10E+00 +/-	1.43E+00	1.81E+00 3.88E-04 +/- 3.02E-05
M 7	125.91	4.81E+00 +/-	3.70E-01	1.79E+00 4.21E-04 +/- 2.46E-05
m 8	130.00	4.44E+01 +/-	1.21E+00	1.78E+00 4.33E-04 +/- 2.80E-05
9	148.57	2.28E+00 +/-	7.15E-01	1.75E+00 4.69E-04 +/- 4.84E-05
10	161.37	1.42E+00 +/-	8.03E-01	1.72E+00 4.81E-04 +/- 5.63E-05
11	172.02	1.94E+00 +/-	7.10E-01	1.70E+00 4.85E-04 +/- 5.88E-05
12	179.81	2.17E+00 +/-	6.79E-01	1.69E+00 4.85E-04 +/- 5.88E-05
13	190.02	3.21E+00 +/-	7.13E-01	1.67E+00 4.82E-04 +/- 5.72E-05
14	196.23	1.17E+00 +/-	5.74E-01	1.66E+00 4.80E-04 +/- 5.54E-05
15	204.20	1.00E+01 +/-	5.93E-01	1.65E+00 4.75E-04 +/- 5.27E-05
16	208.68	1.14E+01 +/-	1.05E+00	1.64E+00 4.72E-04 +/- 5.09E-05
17	256.12	2.18E+00 +/-	5.46E-01	1.57E+00 4.33E-04 +/- 3.09E-05
M 18	264.95	5.22E-01 +/-	2.02E-01	1.56E+00 4.25E-04 +/- 2.78E-05
m 19	268.09	1.31E+00 +/-	3.27E-01	1.56E+00 4.22E-04 +/- 2.68E-05
20	298.03	2.06E+00 +/-	4.34E-01	1.54E+00 3.94E-04 +/- 1.97E-05
21	311.90	2.72E+00 +/-	4.17E-01	1.53E+00 3.82E-04 +/- 1.81E-05
M 22	321.66	1.51E+00 +/-	2.92E-01	1.52E+00 3.74E-04 +/- 1.75E-05
m 23	324.09	1.98E+00 +/-	3.28E-01	1.52E+00 3.72E-04 +/- 1.74E-05
M 24	333.48	1.65E+01 +/-	6.50E-01	1.52E+00 3.65E-04 +/- 1.73E-05
m 25	336.50	5.13E+00 +/-	3.05E-01	1.52E+00 3.62E-04 +/- 1.73E-05
26	345.68	1.40E+01 +/-	4.93E-01	1.51E+00 3.55E-04 +/- 1.74E-05
27	368.81	5.13E+00 +/-	4.66E-01	1.50E+00 3.38E-04 +/- 1.82E-05
28	375.72	2.81E+01 +/-	9.68E-01	1.50E+00 3.34E-04 +/- 1.84E-05
M 29	380.85	7.26E+00 +/-	4.13E-01	1.50E+00 3.30E-04 +/- 1.86E-05
m 30	383.51	6.42E+00 +/-	3.64E-01	1.50E+00 3.28E-04 +/- 1.87E-05
31	393.55	1.44E+01 +/-	5.05E-01	1.49E+00 3.22E-04 +/- 1.90E-05
32	400.66	5.09E-01 +/-	2.69E-01	1.49E+00 3.17E-04 +/- 1.92E-05
33	413.70	4.07E+01 +/-	8.11E-01	1.48E+00 3.09E-04 +/- 1.95E-05
34	423.25	2.38E+00 +/-	2.44E-01	1.47E+00 3.04E-04 +/- 1.96E-05
35	452.25	5.24E+00 +/-	2.56E-01	1.46E+00 2.88E-04 +/- 1.97E-05
36	619.57	3.38E-01 +/-	8.30E-02	1.39E+00 2.22E-04 +/- 1.43E-05
37	646.72	2.02E-01 +/-	8.18E-02	1.38E+00 2.15E-04 +/- 1.32E-05
M 38	659.51	1.34E-01 +/-	4.44E-02	1.37E+00 2.11E-04 +/- 1.27E-05
m 39	663.19	1.25E+00 +/-	1.60E-01	1.37E+00 2.10E-04 +/- 1.26E-05
40	688.74	2.39E-01 +/-	7.82E-02	1.36E+00 2.03E-04 +/- 1.16E-05
41	704.51	9.89E-02 +/-	4.70E-02	1.36E+00 2.00E-04 +/- 1.11E-05
42	722.01	8.27E-01 +/-	9.42E-02	1.35E+00 1.95E-04 +/- 1.05E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	770.02	3.57E-01 +/- 6.77E-02	1.34E+00	1.85E-04 +/- 9.20E-06
44	1001.03	2.90E-02 +/- 2.67E-02	1.29E+00	1.45E-04 +/- 6.25E-06
45	1275.67	1.51E-01 +/- 4.03E-02	1.25E+00	1.12E-04 +/- 5.23E-06
46	1408.01	9.06E-03 +/- 9.06E-03	1.24E+00	9.88E-05 +/- 6.79E-06
47	2236.00	1.00E+02 +/- 1.52E+00	1.19E+00	4.34E-05 +/- 2.42E-05

Segment: 7

Detector: DET01 (# 1)

Position: 7

Elapsed Live Time: 108.37 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.038 +/- 0.0046
SE-75	264.65	0.000 +/- 0.0000	0.098 +/- 0.0025
SE-75	279.53	0.000 +/- 0.0000	0.104 +/- 0.0032
SE-75	400.65	0.000 +/- 0.0000	0.152 +/- 0.0051

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.01	6.29E+00 +/- 5.20E-01	4.10E+00	4.84E-09 +/- 2.78E-08
2	50.48	5.71E+00 +/- 9.93E-01	3.54E+00	3.15E-06 +/- 7.27E-06
3	60.15	1.87E+02 +/- 2.79E+00	3.29E+00	1.60E-05 +/- 2.39E-05
4	99.33	5.02E+01 +/- 1.67E+00	2.87E+00	2.43E-04 +/- 5.53E-05
5	111.68	1.56E+01 +/- 1.17E+00	2.80E+00	3.35E-04 +/- 3.49E-05
M 6	125.89	6.08E+00 +/- 4.27E-01	2.74E+00	4.24E-04 +/- 2.46E-05
m 7	129.96	5.98E+01 +/- 1.45E+00	2.73E+00	4.45E-04 +/- 2.77E-05
8	144.72	1.31E+00 +/- 7.60E-01	2.65E+00	5.04E-04 +/- 4.47E-05
9	148.57	2.21E+00 +/- 8.68E-01	2.62E+00	5.16E-04 +/- 4.85E-05
10	161.73	2.21E+00 +/- 8.29E-01	2.55E+00	5.43E-04 +/- 5.78E-05
11	171.93	2.07E+00 +/- 7.96E-01	2.50E+00	5.55E-04 +/- 6.09E-05
12	179.76	1.79E+00 +/- 7.10E-01	2.46E+00	5.58E-04 +/- 6.12E-05
13	189.99	1.29E+00 +/- 6.20E-01	2.41E+00	5.58E-04 +/- 5.97E-05
14	196.23	2.82E+00 +/- 7.05E-01	2.38E+00	5.56E-04 +/- 5.79E-05
15	208.67	2.20E+01 +/- 1.12E+00	2.33E+00	5.47E-04 +/- 5.32E-05
16	255.91	3.00E+00 +/- 5.18E-01	2.16E+00	4.90E-04 +/- 3.19E-05
M 17	264.74	1.53E+00 +/- 3.14E-01	2.13E+00	4.78E-04 +/- 2.86E-05
m 18	268.10	1.98E+00 +/- 3.60E-01	2.12E+00	4.74E-04 +/- 2.74E-05
19	298.18	2.69E+00 +/- 6.05E-01	2.06E+00	4.34E-04 +/- 2.02E-05
20	311.90	3.05E+00 +/- 4.94E-01	2.03E+00	4.17E-04 +/- 1.86E-05

M 21	321.55	2.03E+00	+/-	3.20E-01	2.01E+00	4.05E-04	+/-	1.79E-05
m 22	324.37	2.39E+00	+/-	3.46E-01	2.01E+00	4.02E-04	+/-	1.78E-05
M 23	333.44	1.95E+01	+/-	7.55E-01	1.99E+00	3.91E-04	+/-	1.76E-05
m 24	336.46	4.76E+00	+/-	3.26E-01	1.99E+00	3.88E-04	+/-	1.76E-05
M 25	342.17	2.39E+00	+/-	2.33E-01	1.98E+00	3.82E-04	+/-	1.76E-05
m 26	345.68	2.04E+01	+/-	7.60E-01	1.97E+00	3.78E-04	+/-	1.76E-05
27	368.81	6.61E+00	+/-	5.67E-01	1.93E+00	3.55E-04	+/-	1.81E-05
28	375.74	3.92E+01	+/-	1.13E+00	1.92E+00	3.48E-04	+/-	1.82E-05
M 29	380.91	9.35E+00	+/-	4.63E-01	1.91E+00	3.44E-04	+/-	1.83E-05
m 30	383.44	8.99E+00	+/-	4.40E-01	1.91E+00	3.42E-04	+/-	1.84E-05
31	393.58	1.97E+01	+/-	5.78E-01	1.89E+00	3.33E-04	+/-	1.86E-05
32	413.70	5.32E+01	+/-	9.86E-01	1.87E+00	3.17E-04	+/-	1.88E-05
33	423.26	2.43E+00	+/-	2.66E-01	1.86E+00	3.10E-04	+/-	1.88E-05
34	452.17	6.28E+00	+/-	2.84E-01	1.83E+00	2.90E-04	+/-	1.86E-05
35	583.64	1.11E-01	+/-	8.27E-02	1.72E+00	2.27E-04	+/-	1.45E-05
36	619.45	4.26E-01	+/-	1.06E-01	1.69E+00	2.15E-04	+/-	1.32E-05
37	646.60	1.90E-01	+/-	8.72E-02	1.67E+00	2.07E-04	+/-	1.23E-05
M 38	659.59	1.92E-01	+/-	5.83E-02	1.66E+00	2.04E-04	+/-	1.18E-05
m 39	663.15	1.46E+00	+/-	1.73E-01	1.66E+00	2.03E-04	+/-	1.17E-05
40	722.01	1.16E+00	+/-	1.16E-01	1.63E+00	1.89E-04	+/-	9.99E-06
41	770.29	4.01E-01	+/-	8.62E-02	1.60E+00	1.79E-04	+/-	8.89E-06
42	1112.12	4.49E-02	+/-	2.54E-02	1.48E+00	1.32E-04	+/-	5.60E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	2236.00	1.00E+02 +/- 1.54E+00	1.34E+00	5.07E-05 +/- 2.69E-05

Segment: 8

Detector: DET01 (# 1)

Position: 8

Elapsed Live Time: 111.07 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.366 +/- 0.0116
SE-75	264.65	0.000 +/- 0.0000	0.490 +/- 0.0106
SE-75	279.53	0.000 +/- 0.0000	0.496 +/- 0.0113
SE-75	400.65	0.000 +/- 0.0000	0.532 +/- 0.0133

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.88	3.29E+00 +/- 3.65E-01	1.93E+00	7.43E-06 +/- 7.27E-06
2	49.96	2.83E+00 +/- 8.58E-01	1.62E+00	5.91E-05 +/- 2.92E-05
3	60.16	1.13E+02 +/- 1.85E+00	1.56E+00	1.10E-04 +/- 3.84E-05
4	99.32	2.50E+01 +/- 1.16E+00	1.47E+00	3.24E-04 +/- 3.31E-05
5	111.70	3.64E+00 +/- 9.38E-01	1.45E+00	3.75E-04 +/- 2.72E-05
6	116.22	8.66E+00 +/- 9.90E-01	1.45E+00	3.91E-04 +/- 2.56E-05
M 7	126.00	3.24E+00 +/- 3.19E-01	1.44E+00	4.19E-04 +/- 2.31E-05
m 8	130.00	3.20E+01 +/- 1.00E+00	1.43E+00	4.29E-04 +/- 2.26E-05
9	148.57	2.10E+00 +/- 6.65E-01	1.41E+00	4.62E-04 +/- 2.28E-05
10	171.91	1.64E+00 +/- 5.44E-01	1.38E+00	4.80E-04 +/- 2.51E-05
11	196.40	8.41E-01 +/- 4.24E-01	1.36E+00	4.79E-04 +/- 2.62E-05
12	204.18	2.07E+00 +/- 5.96E-01	1.35E+00	4.76E-04 +/- 2.61E-05
13	208.68	1.18E+01 +/- 8.08E-01	1.35E+00	4.74E-04 +/- 2.60E-05
14	256.16	9.70E-01 +/- 4.33E-01	1.30E+00	4.39E-04 +/- 2.28E-05
15	298.19	1.75E+00 +/- 5.38E-01	1.28E+00	4.01E-04 +/- 1.90E-05
16	311.90	1.80E+00 +/- 3.54E-01	1.28E+00	3.88E-04 +/- 1.78E-05
M 17	321.62	1.61E+00 +/- 2.65E-01	1.28E+00	3.80E-04 +/- 1.71E-05
m 18	324.33	1.31E+00 +/- 2.37E-01	1.28E+00	3.77E-04 +/- 1.69E-05
M 19	333.45	1.21E+01 +/- 5.72E-01	1.27E+00	3.69E-04 +/- 1.62E-05
m 20	336.57	3.49E+00 +/- 2.51E-01	1.27E+00	3.66E-04 +/- 1.60E-05
21	345.72	1.01E+01 +/- 4.55E-01	1.27E+00	3.59E-04 +/- 1.54E-05
22	368.54	3.73E+00 +/- 4.12E-01	1.27E+00	3.40E-04 +/- 1.42E-05
23	375.73	1.97E+01 +/- 7.76E-01	1.26E+00	3.34E-04 +/- 1.38E-05
M 24	380.92	4.75E+00 +/- 3.32E-01	1.26E+00	3.30E-04 +/- 1.36E-05

m	25	383.50	4.71E+00	+/-	3.15E-01	1.26E+00	3.28E-04	+/-	1.35E-05
	26	393.64	9.93E+00	+/-	3.90E-01	1.26E+00	3.21E-04	+/-	1.31E-05
F	27	414.43	2.71E+01	+/-	8.08E-01	1.25E+00	3.06E-04	+/-	1.25E-05
	28	423.24	1.77E+00	+/-	2.04E-01	1.25E+00	3.00E-04	+/-	1.22E-05
	29	438.28	1.75E-01	+/-	8.73E-02	1.25E+00	2.90E-04	+/-	1.19E-05
	30	446.70	2.46E-01	+/-	1.18E-01	1.25E+00	2.85E-04	+/-	1.17E-05
	31	452.15	3.19E+00	+/-	2.24E-01	1.24E+00	2.82E-04	+/-	1.16E-05
	32	619.63	8.25E-02	+/-	5.84E-02	1.21E+00	2.06E-04	+/-	9.86E-06
	33	662.42	8.49E-01	+/-	1.09E-01	1.20E+00	1.93E-04	+/-	9.41E-06
	34	722.01	3.71E-01	+/-	7.47E-02	1.19E+00	1.78E-04	+/-	8.71E-06
	35	1112.12	8.92E-03	+/-	8.92E-03	1.15E+00	1.26E-04	+/-	4.65E-06
	36	2236.00	1.00E+02	+/-	1.52E+00	1.11E+00	1.19E-04	+/-	2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 113.72 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.282 +/- 0.0091
SE-75	264.65	0.000 +/- 0.0000	0.360 +/- 0.0077
SE-75	279.53	0.000 +/- 0.0000	0.368 +/- 0.0085
SE-75	400.65	0.000 +/- 0.0000	0.410 +/- 0.0104

PEAK ANALYSIS RESULTS			
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	Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
	1	31.81	5.88E-01 +/- 1.48E-01	2.23E+00	5.45E-09 +/- 3.32E-08
	2	60.15	1.98E+01 +/- 6.35E-01	1.73E+00	1.65E-05 +/- 2.58E-05
	3	103.97	1.10E+00 +/- 4.27E-01	1.60E+00	2.69E-04 +/- 4.82E-05
F	4	129.98	2.56E+00 +/- 3.61E-01	1.56E+00	4.24E-04 +/- 2.73E-05
	5	148.57	6.43E-01 +/- 3.23E-01	1.54E+00	4.88E-04 +/- 4.79E-05
	6	208.64	4.97E-01 +/- 3.21E-01	1.48E+00	5.11E-04 +/- 5.15E-05
M	7	333.52	6.73E-01 +/- 1.66E-01	1.40E+00	3.59E-04 +/- 1.71E-05
m	8	336.71	2.25E-01 +/- 9.16E-02	1.40E+00	3.55E-04 +/- 1.71E-05
	9	345.74	5.30E-01 +/- 1.49E-01	1.40E+00	3.46E-04 +/- 1.72E-05
	10	375.69	1.46E+00 +/- 1.80E-01	1.39E+00	3.18E-04 +/- 1.78E-05
	11	393.65	5.66E-01 +/- 1.14E-01	1.38E+00	3.03E-04 +/- 1.81E-05
F	12	414.46	1.35E+00 +/- 1.73E-01	1.37E+00	2.88E-04 +/- 1.83E-05
	13	423.42	1.59E-01 +/- 6.19E-02	1.37E+00	2.82E-04 +/- 1.83E-05
	14	511.52	1.91E-01 +/- 7.02E-02	1.33E+00	2.33E-04 +/- 1.66E-05
	15	964.13	2.95E-02 +/- 2.47E-02	1.23E+00	1.38E-04 +/- 6.28E-06
	16	2236.00	1.00E+02 +/- 1.50E+00	1.15E+00	6.12E-05 +/- 3.31E-05

Segment: 10

Detector: DET01 (# 1)

Position: 10

Elapsed Live Time: 114.07 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.259 +/- 0.0085
SE-75	264.65	0.000 +/- 0.0000	0.386 +/- 0.0083
SE-75	279.53	0.000 +/- 0.0000	0.400 +/- 0.0091
SE-75	400.65	0.000 +/- 0.0000	0.451 +/- 0.0113

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	60.05	4.71E+00 +/- 3.43E-01	1.79E+00	1.37E-04 +/- 4.88E-05
2	300.10	2.23E-01 +/- 1.38E-01	1.38E+00	3.96E-04 +/- 1.86E-05
3	722.01	3.42E-02 +/- 2.85E-02	1.24E+00	1.89E-04 +/- 9.55E-06
4	778.90	5.64E-02 +/- 2.79E-02	1.23E+00	1.76E-04 +/- 8.75E-06
5	964.13	5.69E-02 +/- 3.40E-02	1.20E+00	1.45E-04 +/- 6.11E-06
6	2236.00	1.00E+02 +/- 1.49E+00	1.13E+00	9.04E-05 +/- 2.29E-05

Segment: 11

Detector: DET01 (# 1)

Position: 11

Elapsed Live Time: 114.21 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.192 +/- 0.0076
SE-75	264.65	0.000 +/- 0.0000	0.320 +/- 0.0069
SE-75	279.53	0.000 +/- 0.0000	0.328 +/- 0.0076
SE-75	400.65	0.000 +/- 0.0000	0.388 +/- 0.0098

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.28	2.50E+00 +/-	2.68E-01	2.00E+00 5.02E-04 +/- 8.41E-04
2	244.70	3.66E-01 +/-	1.69E-01	1.53E+00 3.78E-04 +/- 3.13E-05
3	400.66	5.20E-02 +/-	3.83E-02	1.40E+00 3.14E-04 +/- 1.90E-05
4	443.98	1.02E-01 +/-	3.92E-02	1.38E+00 2.95E-04 +/- 2.00E-05
5	778.90	5.20E-02 +/-	3.19E-02	1.28E+00 1.83E-04 +/- 9.12E-06
6	867.39	2.02E-02 +/-	1.74E-02	1.26E+00 1.63E-04 +/- 7.48E-06
7	964.13	2.60E-02 +/-	1.50E-02	1.25E+00 1.45E-04 +/- 6.48E-06
8	1085.91	8.66E-03 +/-	8.66E-03	1.23E+00 1.27E-04 +/- 5.57E-06
9	2236.00	1.00E+02 +/-	1.50E+00	1.16E+00 5.79E-05 +/- 3.30E-05

Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 114.24 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.204 +/- 0.0076
SE-75	264.65	0.000 +/- 0.0000	0.311 +/- 0.0067
SE-75	279.53	0.000 +/- 0.0000	0.319 +/- 0.0074
SE-75	400.65	0.000 +/- 0.0000	0.374 +/- 0.0095

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.13	1.71E+00 +/-	2.29E-01	1.96E+00 1.29E-05 +/- 2.07E-05
2	244.70	1.95E-01 +/-	1.16E-01	1.53E+00 4.83E-04 +/- 3.71E-05
3	413.70	7.53E-02 +/-	3.90E-02	1.41E+00 2.87E-04 +/- 1.84E-05
4	964.13	2.01E-02 +/-	3.29E-02	1.26E+00 1.38E-04 +/- 6.29E-06
5	2236.00	1.00E+02 +/-	1.49E+00	1.17E+00 6.48E-05 +/- 3.54E-05

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 114.27 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.280 +/- 0.0091
SE-75	264.65	0.000 +/- 0.0000	0.404 +/- 0.0087
SE-75	279.53	0.000 +/- 0.0000	0.407 +/- 0.0093
SE-75	400.65	0.000 +/- 0.0000	0.468 +/- 0.0116

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.08	9.97E-01 +/- 1.98E-01	1.74E+00	2.27E-05 +/- 3.85E-05
2	413.70	1.43E-01 +/- 5.27E-02	1.31E+00	2.89E-04 +/- 1.94E-05
3	511.91	1.51E-01 +/- 4.50E-02	1.28E+00	2.39E-04 +/- 1.80E-05
4	778.90	2.59E-02 +/- 1.49E-02	1.22E+00	1.70E-04 +/- 8.63E-06
5	867.39	6.52E-02 +/- 2.90E-02	1.21E+00	1.57E-04 +/- 7.21E-06
6	964.13	4.01E-02 +/- 3.14E-02	1.19E+00	1.45E-04 +/- 6.45E-06
7	2236.00	1.00E+02 +/- 1.49E+00	1.13E+00	5.36E-05 +/- 3.03E-05

Segment: 14 Detector: DET01 (# 1) Position: 14

Elapsed Live Time: 114.31 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.314 +/- 0.0101
SE-75	264.65	0.000 +/- 0.0000	0.395 +/- 0.0085
SE-75	279.53	0.000 +/- 0.0000	0.402 +/- 0.0092
SE-75	400.65	0.000 +/- 0.0000	0.451 +/- 0.0113

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.21	2.34E-01 +/- 9.73E-02	1.66E+00	9.61E-05 +/- 1.50E-04
2	129.29	3.59E-01 +/- 2.11E-01	1.51E+00	4.20E-04 +/- 2.62E-05
3	174.03	2.37E-01 +/- 1.48E-01	1.47E+00	4.65E-04 +/- 5.41E-05
4	778.90	1.87E-02 +/- 1.98E-02	1.23E+00	1.70E-04 +/- 8.37E-06
5	867.39	3.73E-02 +/- 2.62E-02	1.22E+00	1.55E-04 +/- 7.11E-06
6	1085.91	1.72E-02 +/- 1.22E-02	1.19E+00	1.28E-04 +/- 5.58E-06
7	1112.12	3.36E-02 +/- 2.21E-02	1.19E+00	1.26E-04 +/- 5.44E-06
8	2236.00	1.00E+02 +/- 1.49E+00	1.13E+00	7.64E-05 +/- 4.15E-05

Segment: 15

Detector: DET01 (# 1)

Position: 15

Elapsed Live Time: 114.31 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.295 +/- 0.0097
SE-75	264.65	0.000 +/- 0.0000	0.404 +/- 0.0086
SE-75	279.53	0.000 +/- 0.0000	0.409 +/- 0.0093
SE-75	400.65	0.000 +/- 0.0000	0.452 +/- 0.0112

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	300.10	1.07E-01 +/- 6.22E-02	1.37E+00	3.60E-04 +/- 1.79E-05
2	1085.91	3.44E-02 +/- 1.72E-02	1.19E+00	1.21E-04 +/- 5.37E-06
3	2236.00	1.00E+02 +/- 1.49E+00	1.13E+00	3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01 (# 1)

Position: 16

Elapsed Live Time: 114.35 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.490 +/- 0.0141
SE-75	264.65	0.000 +/- 0.0000	0.558 +/- 0.0119
SE-75	279.53	0.000 +/- 0.0000	0.562 +/- 0.0126
SE-75	400.65	0.000 +/- 0.0000	0.596 +/- 0.0145

PEAK ANALYSIS RESULTS					
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency	
1	413.70	3.52E-02 +/- 2.65E-02	1.21E+00	1.79E-04 +/-	8.85E-06
2	662.42	2.59E-02 +/- 1.49E-02	1.16E+00	1.15E-04 +/-	7.04E-06
3	1085.91	8.63E-03 +/- 8.63E-03	1.12E+00	7.51E-05 +/-	3.53E-06
4	1408.01	8.63E-03 +/- 8.63E-03	1.10E+00	6.48E-05 +/-	4.76E-06
5	2236.00	1.00E+02 +/- 1.49E+00	1.09E+00	6.28E-05 +/-	1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: LL85234270
Peak Locate Performed on: 12-19-07 3:48:50 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.57	0.1646	31.95	17.17
2	100.59	0.2403	49.96	6.17
3	120.98	0.0509	60.16	168.57
4	199.32	0.0723	99.32	78.61
5	224.03	0.1005	111.68	41.98
6	233.26	0.1166	116.30	15.65
7	252.40	0.0684	125.94	89.13
8	260.65	0.0684	129.98	89.13
9	290.22	0.2318	144.77	9.07
10	299.19	0.1619	149.26	17.90
11	344.69	0.2411	172.01	7.63
12	359.91	0.2777	179.62	5.95
13	380.51	0.2266	189.92	8.24
14	393.14	0.2178	196.24	9.65
15	409.05	0.1017	204.19	41.70
16	418.02	0.0752	208.68	74.85
17	512.81	0.1801	256.07	13.26
18	536.89	0.2627	268.11	6.66
19	596.99	0.2143	298.16	9.82
20	625.88	0.1481	312.61	18.99
21	643.28	0.2457	321.55	6.78
22	649.51	0.2439	324.31	6.64
23	667.56	0.0873	333.46	49.31
24	674.14	0.1593	336.50	19.64
25	692.03	0.0870	345.68	54.46
26	738.15	0.1402	368.74	13.83
27	752.13	0.0642	375.73	94.24
28	762.09	0.1163	380.89	33.07
29	767.91	0.1278	383.47	28.04
30	787.83	0.0862	393.58	51.17
31	829.49	0.0631	414.41	86.52
32	847.16	0.1255	423.25	24.96
33	905.03	0.1113	452.18	31.63
34	1023.97	0.2155	511.65	7.00
35	1119.23	0.2568	559.28	5.81
36	1239.72	0.2236	619.53	7.16

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	1294.02	0.2369	646.68	7.13
38	1319.20	0.1557	659.48	14.66
39	1327.06	0.1557	663.17	14.66
40	1446.12	0.1757	722.72	11.12
41	2667.94	0.2302	1333.64	5.76
42	2925.18	0.2260	1462.25	5.66
43	4473.20	0.0264	2236.27	411.93

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: LL85234270
Peak Analysis Performed on: 12-19-07 3:48:51 PM
Peak Analysis From Channel: 40
Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Area	Net Uncert.	Continuum Counts
1	61-	70	64.57	31.95	2.11E+03	97.22		2.76E+03
2	94-	105	100.59	49.96	1.62E+03	197.40		1.45E+04
3	114-	127	120.98	60.16	5.25E+04	310.70		1.60E+04
4	194-	203	199.32	99.32	1.34E+04	292.65		3.20E+04
5	217-	228	224.03	111.68	1.78E+03	254.57		2.43E+04
6	228-	240	233.26	116.30	3.70E+03	278.17		2.71E+04
M	7	250-	267	252.56	125.94	1.69E+03	83.65	7.40E+03
m	8	250-	267	260.62	129.98	1.58E+04	229.80	7.43E+03
9	287-	293	290.22	144.77	4.82E+02	118.74		7.17E+03
10	297-	304	299.19	149.26	9.17E+02	132.75		8.22E+03
11	337-	348	344.69	172.01	7.52E+02	169.23		1.11E+04
12	356-	367	359.91	179.62	3.97E+02	162.05		1.03E+04
13	377-	387	380.51	189.92	5.55E+02	148.16		8.96E+03
14	389-	400	393.14	196.24	5.29E+02	154.09		9.24E+03
15	405-	412	409.05	204.19	3.62E+03	127.21		6.26E+03
16	412-	425	418.02	208.68	3.95E+03	220.68		1.53E+04
17	509-	520	512.81	256.07	7.63E+02	114.03		4.86E+03
18	533-	544	536.89	268.11	2.90E+02	106.50		4.39E+03
19	589-	604	596.99	298.16	6.20E+02	121.53		4.71E+03
20	621-	629	625.88	312.61	9.50E+02	80.34		2.59E+03
M	21	639-	657	643.76	321.55	6.03E+02	64.83	2.68E+03
m	22	639-	657	649.28	324.31	6.76E+02	68.03	3.31E+03
M	23	660-	681	667.59	333.46	5.35E+03	128.58	2.48E+03
m	24	660-	681	673.67	336.50	1.32E+03	58.26	2.87E+03
25	691-	699	692.03	345.68	4.90E+03	96.38		1.81E+03
26	730-	745	738.15	368.74	1.71E+03	103.06		2.97E+03
27	745-	759	752.13	375.73	9.94E+03	178.47		7.14E+03
M	28	759-	775	762.44	380.89	2.46E+03	77.52	1.45E+03
m	29	759-	775	767.61	383.47	2.31E+03	71.78	1.13E+03
30	780-	795	787.83	393.58	5.03E+03	95.39		1.36E+03
31	821-	837	829.49	414.41	1.38E+04	129.13		9.24E+02
32	844-	851	847.16	423.25	7.85E+02	42.66		4.93E+02
33	901-	912	905.03	452.18	1.71E+03	49.20		2.75E+02
34	1016-	1031	1023.97	511.65	3.82E+02	34.05		2.59E+02
35	1116-	1123	1119.23	559.28	7.05E+01	16.55		9.95E+01
36	1234-	1247	1239.72	619.53	1.01E+02	22.98		1.55E+02
37	1290-	1298	1294.02	646.68	5.76E+01	17.51		1.16E+02

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
M	38	1317-	1335	1319.63	659.48	6.59E+01	11.06	5.66E+01	
m	39	1317-	1335	1327.00	663.17	4.41E+02	33.54	7.12E+01	
F	40	1442-	1454	1446.10	722.72	2.56E+02	27.14	6.24E+01	
	41	2662-	2673	2667.94	1333.64	6.91E+01	11.03	2.09E+01	
	42	2915-	2932	2925.18	1462.25	7.35E+01	13.28	3.15E+01	
	43	4466-	4478	4473.20	2236.27	1.84E+05	428.86	1.03E+02	

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: LL85234270
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	0.995	2236.00*	100.00	7.454E+02	1.939E+02
Np-237	0.733	300.10	6.63		
		311.90*	38.60	2.206E+00	1.877E-01
Pu-239	0.964	413.70*	0.00	1.021E+06	2.170E+04
Pu-239A	0.967	129.29*	0.01	2.305E+05	6.918E+03
Am-241	0.961	662.42*	0.00	1.787E+05	1.372E+04
Am-241D	0.965	722.01*	0.00	2.268E+05	2.419E+04
Pu-241	0.967	148.57*	0.00	4.018E+05	5.885E+04

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-19-07 3:48:50 PM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	31.95	1.8452E+01	4.61
2	49.96	1.4182E+01	12.17
3	60.16	4.5895E+02	0.64
4	99.32	1.1687E+02	2.20
5	111.68	1.5596E+01	14.27
6	116.30	3.2339E+01	7.52
M 7	125.94	1.4780E+01	4.95
9	144.77	4.2149E+00	24.63
11	172.01	6.5717E+00	22.52
12	179.62	3.4709E+00	40.82
13	189.92	4.8558E+00	26.68
14	196.24	4.6221E+00	29.15
15	204.19	3.1674E+01	3.52
16	208.68	3.4537E+01	5.59
17	256.07	6.6698E+00	14.95
18	268.11	2.5358E+00	36.72
19	298.16	5.4239E+00	19.59
M 21	321.55	5.2727E+00	10.75
m 22	324.31	5.9079E+00	10.07
M 23	333.46	4.6771E+01	2.42
m 24	336.50	1.1530E+01	4.42
25	345.68	4.2847E+01	1.98
26	368.74	1.4973E+01	6.02
27	375.73	8.6891E+01	1.81
M 28	380.89	2.1533E+01	3.16
m 29	383.47	2.0204E+01	3.12
30	393.58	4.3935E+01	1.92
32	423.25	6.8624E+00	5.44
33	452.18	1.4939E+01	2.89
34	511.65	3.3401E+00	8.92
35	559.28	6.1638E-01	23.48
36	619.53	8.8673E-01	22.66
37	646.68	5.0389E-01	30.38
M 38	659.48	5.7621E-01	16.79
41	1333.64	6.0375E-01	15.98
42	1462.25	6.4261E-01	18.07

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	8.37E+02 +/- 1.23E+02		3.08E-02 +/- 4.53E-03	
SE-75	< 2.16E-01 +/- 1.29E-02	<	7.95E-06 +/- 4.76E-07	
EU-152x	4.38E-02 +/- 1.54E-02		1.61E-06 +/- 5.66E-07	
U-233	< 1.11E+04 +/- 8.08E+02	<	4.07E-01 +/- 2.97E-02	
U-235	5.99E-02 +/- 4.53E-02		2.20E-06 +/- 1.66E-06	
Np-237	2.27E+00 +/- 2.32E-01		8.35E-05 +/- 8.54E-06	
Pu-238	< 1.88E+04 +/- 1.86E+03	<	6.92E-01 +/- 6.85E-02	
U-238	8.28E-01 +/- 7.63E-01		3.04E-05 +/- 2.81E-05	
Pu-239	1.17E+06 +/- 4.54E+04		4.29E+01 +/- 1.67E+00	
Pu-239A	2.93E+05 +/- 1.26E+04		1.08E+01 +/- 4.63E-01	
Am-241	1.81E+05 +/- 1.44E+04		6.66E+00 +/- 5.28E-01	
Am-241D	2.65E+05 +/- 2.03E+04		9.75E+00 +/- 7.48E-01	
Pu-241	4.08E+05 +/- 8.41E+04		1.50E+01 +/- 3.09E+00	

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

U-235	2.78E-02	+/-	2.10E-02
Np-237	3.22E-03	+/-	3.30E-04
U-238	2.47E+00	+/-	2.27E+00
Pu-239	1.88E+01	+/-	7.31E-01
Pu-239A	4.71E+00	+/-	2.03E-01
Am-241	5.29E-02	+/-	4.19E-03
Pu-241	3.94E-03	+/-	8.14E-04

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	7.45E+02	+/-	1.94E+02	2.74E-02
SE-75	<	6.48E-01	+/-	6.80E-03
EU-152x	<	5.10E-01	+/-	1.03E-02
U-233	<	3.36E+04	+/-	8.07E+02
U-235	<	8.80E-01	+/-	2.19E-02
Np-237	2.21E+00	+/-	1.88E-01	8.11E-05
Pu-238	<	6.24E+04	+/-	1.37E+03
U-238	<	1.64E+01	+/-	2.67E-01
Pu-239	1.02E+06	+/-	2.17E+04	3.75E+01
Pu-239A	2.31E+05	+/-	6.92E+03	8.48E+00
Am-241	1.79E+05	+/-	1.37E+04	6.57E+00
Am-241D	2.27E+05	+/-	2.42E+04	8.34E+00
Pu-241	4.02E+05	+/-	5.88E+04	1.48E+01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

Np-237	3.13E-03	+/-	2.67E-04
Pu-239	1.64E+01	+/-	3.49E-01
Pu-239A	3.71E+00	+/-	1.11E-01
Am-241	5.22E-02	+/-	4.01E-03
Pu-241	3.88E-03	+/-	5.69E-04

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.829 +/- 2.6143
Matrix Longitudinal Ratio: 0.725 +/- 0.0492

Source Vertical Ratio: 0.808 +/- 0.4358
Matrix Vertical Ratio: 0.830 +/- 0.0232

NUDS could not find the transmission peak in one radial segment.

Radioassay Data Sheet
Procedure ID & Rev: WCP-55 03/07/2002

Wed Dec 19 02:52:58 2007
Software Version: GWAS v2.3bGEN

Drum ID	:	LL85001792	Gross Weight (kg)	:	61.8
Sequence Number	:	2503	Fill Height (%)	:	100.0
Assay Date	:	12/13/07 10:53:22	Density (g/cc)	:	0.18
Batch Number	:		Net Weight (kg)	:	38.00
Site ID	:		Waste Matrix Code	:	
			TRUCON	:	

		Errors at 1.00 Sigma
TRU Alpha Activity Concentration:	4.73e-05	+/- 6.09e-06 Ci/g
Total Pu-239 Equiv Activity:	1.81e+00	+/- 2.31e-01 Ci
Total Pu-239 Fissile Gram Equiv:	6.13e+00	+/- 1.17e+00 g
Decay Heat:	5.96e-02	+/- 7.79e-03 W
Total Pu Mass:	6.73e+00	+/- 1.17e+00 g
TMU:	19.20%	
Waste Classification:	TRU	

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
Pu-238	1.06e-01	7.33e+00
Pu-239	9.03e+01	5.89e-01
Pu-240	9.18e+00	5.54e+00
Pu-241	1.94e-01	6.05e+00
Pu-242	2.63e-01	2.30e+01
Am-241	7.00e+00	3.11e+00
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	0.00e+00	0.00e+00

Activity Errors

Isotope	1.00 Sigma Mass (g)	Alpha Activity/ Error/Isotope Mass (g)	1.00 Sigma Isotope (Ci)	Error/Isotope (Ci)	MDA (g)
Pu-238	7.14e-03	1.47e-03	1.22e-01	2.51e-02	1.82e-03
Pu-239	6.07e+00	1.17e+00	3.77e-01	7.24e-02	1.17e-01
Pu-240	6.18e-01	1.23e-01	1.40e-01	2.80e-02	0.00e+00
Pu-241	1.31e-02	2.63e-03	1.35e+00	2.72e-01	1.99e-03
Pu-242	1.77e-02	5.30e-03	6.94e-05	2.08e-05	0.00e+00
Am-241	3.38e-01	6.33e-02	1.16e+00	2.17e-01	5.69e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	1.05e-02	1.97e-03	7.41e-06	1.39e-06	5.77e-04
*U-235	<LLD	0.00e+00	0.00e+00	0.00e+00	1.65e-01
*U-238	<LLD	0.00e+00	0.00e+00	0.00e+00	1.77e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	1.36e+00
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Date

12-19-07

Reviewer Signature

Date

AUTOMATED INDEPENDENT TECHNICAL REVIEW BASED ON WCP-55 03/07/2002

Software Version: GWAS v2.3bGEN
Counter Number: SGS
Data Review for Container: LL85001792
Item Description Code: \Count Type: DEBRIS
Sequence Number: 2503
Assayed on: 12/13/07 10:53:22
Report Generated: 12/19/07 14:52:43
AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

REVIEW Pu-240 Wt Pct -2 Sigma error <8.16> greater than <5.87> Review MGA R OK
Pu-240 Wt Pct error <5.54> is within limits
Pu-238 Wt Pct error <7.33> is within limits
REVIEW QFIT <4.77> > <1.20> Review MGA Results OK
REVIEW MGAERR18: Pu-241/Pu-239 efficiency changed in MGACAL by 6.00 OK

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.183> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <1.62e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <0.58> is acceptable in Segment 1
Pulser value <0.99> is within range in Segment 1
DEAD TIME percentage <0.61> is acceptable in Segment 2
Pulser value <0.98> is within range in Segment 2
DEAD TIME percentage <0.61> is acceptable in Segment 3
Pulser value <0.99> is within range in Segment 3
DEAD TIME percentage <0.63> is acceptable in Segment 4
Pulser value <0.99> is within range in Segment 4
DEAD TIME percentage <0.68> is acceptable in Segment 5
Pulser value <0.99> is within range in Segment 5
DEAD TIME percentage <0.77> is acceptable in Segment 6
Pulser value <0.99> is within range in Segment 6
DEAD TIME percentage <0.99> is acceptable in Segment 7
Pulser value <0.99> is within range in Segment 7
DEAD TIME percentage <1.27> is acceptable in Segment 8
Pulser value <0.99> is within range in Segment 8
DEAD TIME percentage <1.67> is acceptable in Segment 9
Pulser value <0.99> is within range in Segment 9
DEAD TIME percentage <4.70> is acceptable in Segment 10
Pulser value <1.00> is within range in Segment 10
DEAD TIME percentage <13.77> is acceptable in Segment 11
Pulser value <1.02> is within range in Segment 11
DEAD TIME percentage <13.48> is acceptable in Segment 12
Pulser value <1.02> is within range in Segment 12
DEAD TIME percentage <3.53> is acceptable in Segment 13
Pulser value <1.00> is within range in Segment 13
DEAD TIME percentage <1.36> is acceptable in Segment 14
Pulser value <0.99> is within range in Segment 14
DEAD TIME percentage <1.17> is acceptable in Segment 15
Pulser value <0.99> is within range in Segment 15
DEAD TIME percentage <1.00> is acceptable in Segment 16

Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
Transmission results are acceptable in Segment 2
Transmission results are acceptable in Segment 3
Transmission results are acceptable in Segment 4
Transmission results are acceptable in Segment 5
Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

REVIEW Reduced chi squared fit value <7.96e+00> exceeds limit <3.00> for energy peak <129.96> in Segment 10
REVIEW Reduced chi squared fit value <2.44e+01> exceeds limit <3.00> for energy peak <129.91> in Segment 12
REVIEW Reduced chi squared fit value <5.72e+00> exceeds limit <3.00> for energy peak <129.95> in the .A04

OK

Section 7 - FGE MASS REVIEW

FGE Mass <7.29> is within limits

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

REVIEW Am-241 ratio <17.97> is below lower limit <200.00>
Np-237 ratio <578.23> is above lower limit <125.00>

OK

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <6.07> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Am-241D > Am-241A: Calculation not performed

Ok checked.

Independent Reviewer: Robert J. Hatchell Jr. Date: 12-19-07

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS

Data Review for Container: LL85001792

Item Description Code:

Sequence Number: 2503

Assayed on: 12/13/07 10:53:22

AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA	OK
Pu-240 Wt Pct -2 Sigma error is greater than upper limit.	OK Best Possible Fit.
QFIT is greater than upper limit.	OK
MGAERR18	
SECTION 6 - REDUCED CHI SQUARED FIT	
Chi square failure for 130.0 Kev in Segment 10	
Chi square failure for 129.9 Kev in Segment 12	> OK. Ratio 129/13 OK.
Chi square failure for 129.9 KeV in .A04 Spectrum.	
SECTION 9 - IDC COUNT TYPE	N/A
IDC is not available.	
SECTION 10 - AM-241 & NP-237 INTERFERENCE TEST	
Possible Am-241 interference with 129 KeV peak.	OK Checked

Technical Reviewer: Robert Hasheth Date: 12-19-07

M G A R E P O R T

Report generated on:

12-19-07 2:29:46 PM

MGA version: MGA V9.5 CI

Spectrum ID: 11202503.CNF Sens : 30.0% LT: 55.4 Mins DT: 3.13
Measurement date: 12-13-07 Declared date: 12-13-07

Sample ID: LL85001792 Detector: Total counts: 3.335E+06

Pu g/cm² = 0.4750 Cd g/cm² = 2.0000 FWHM at 122 keV = 606 eV
QFIT = 4.77 FWHM at 208 keV = 773 eV
NQFIT = 1.27

Isotope	Relative to Pu-239	%*		Relative to Pu-241		%*		Isotope analysis at			
		Err	Err	Err	Err	Meas. date	Decl. date	% weight	% Err	% weight	% Err
Pu-238	0.001175	7.5	6.8	0.5466	7.7	0.10609	7.33	0.10609	7.33		
Pu-239	1.000000	0.0	3.4	465.0249	6.2	90.26019	0.59	90.26019	0.59		
Pu-240	0.101671	6.1	5.0	47.2794	7.4	9.17681	5.54	9.17681	5.54		
Pu-241	0.002150	6.2	5.4	1.0000	0.0	0.19410	6.05	0.19410	6.05		
Pu-242	(New alg.)			1.3540	(23)	0.26281	(23)	0.26281	(23)		
Am-241	0.077520	3.4	0.5	36.0485	5.5	6.99693	3.11	6.99693	3.11		

Pu-240 effective (meas. date) = 9.886 +/- 6.14%
Am-241 separated about 74.732 +/- 0.248 years ago
Am/Pu-241 weight ratio = 36.04852 +/- 5.45%

Messages :

Lead x-rays detected.
Pu-241/Pu-239 efficiency changed in MGACAL by 6%.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Gamma Waste Assay

Sample Information

File Name: C:\WAS\DATA\2600\11102503.S11
Sample ID: LL85001792 Count Sequence Number: 2503
Assay Start: 12-13-07 10:53:23 AM
Description 1:
Description 2:
Location:
Comment:
Waste Type:
Weight: Gross: 61800.0 g Net: 38000.0 g
Density: 0.183 g /ml
Container Type: 55 Gal Galv 23.8
Container: Volume: 208000. ml Full: 100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: 55 Gal Galv 23.8
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps
Geometric Correction Factor(SWCONTGCF): 0.760
Date of efficiency calibration approval: 8-27-2003 2:05:34 PM
Mu Factors response file: Lucite response
Transmission Calib. Time: 12-10-2007 3:51:07 PM 28849

Reviewed by:



Date: 12-19-07

Segment Results

Segment: 1 Detector: DET01 (# 1) Position: 1

Elapsed Live Time: 114.33 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.028 +/- 0.0026
SE-75	264.65	0.000 +/- 0.0000	0.081 +/- 0.0020
SE-75	279.53	0.000 +/- 0.0000	0.085 +/- 0.0024
SE-75	400.65	0.000 +/- 0.0000	0.123 +/- 0.0040

Peak No.	PEAK ANALYSIS RESULTS			
	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.50	2.26E-01 +/- 7.55E-02	4.10E+00	6.34E-10 +/- 4.38E-09
2	49.22	7.79E+00 +/- 3.91E-01	3.90E+00	6.84E-07 +/- 2.07E-06
3	59.96	4.06E-01 +/- 1.32E-01	3.57E+00	6.14E-06 +/- 1.14E-05
4	148.57	2.17E-01 +/- 1.57E-01	2.82E+00	3.59E-04 +/- 4.14E-05
5	558.65	7.21E-02 +/- 5.51E-02	1.83E+00	1.48E-04 +/- 1.18E-05
6	2236.00	1.00E+02 +/- 1.50E+00	1.38E+00	3.40E-05 +/- 2.15E-05

Segment: 2 Detector: DET01 (# 1) Position: 2

Elapsed Live Time: 114.30 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.165 +/- 0.0064
SE-75	264.65	0.000 +/- 0.0000	0.285 +/- 0.0062
SE-75	279.53	0.000 +/- 0.0000	0.289 +/- 0.0068
SE-75	400.65	0.000 +/- 0.0000	0.348 +/- 0.0089

P E A K A N A L Y S I S R E S U L T S					
---	--	--	--	--	--

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency	
1	49.16	7.25E+00 +/- 4.10E-01	2.25E+00	7.95E-05 +/- 2.11E-04	
2	60.14	3.58E-01 +/- 1.93E-01	2.11E+00	1.33E-04 +/- 2.14E-04	
3	1085.91	2.69E-02 +/- 2.05E-02	1.26E+00	1.20E-04 +/- 5.31E-06	
4	1408.01	1.72E-02 +/- 1.22E-02	1.22E+00	1.02E-04 +/- 6.88E-06	
5	2236.00	1.00E+02 +/- 1.49E+00	1.18E+00	9.73E-05 +/- 5.41E-05	

Segment: 3

Detector: DET01 (# 1)

Position: 3

Elapsed Live Time: 114.30 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S					
--	--	--	--	--	--

Nuclide	Energy	Container Transmission	Sample Transmission	
SE-75	136.00	0.000 +/- 0.0000	0.192 +/- 0.0073	
SE-75	264.65	0.000 +/- 0.0000	0.299 +/- 0.0065	
SE-75	279.53	0.000 +/- 0.0000	0.308 +/- 0.0071	
SE-75	400.65	0.000 +/- 0.0000	0.364 +/- 0.0093	

P E A K A N A L Y S I S R E S U L T S					
---	--	--	--	--	--

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency	
1	31.75	2.09E-01 +/- 9.69E-02	2.71E+00	3.24E-06 +/- 3.14E-06	
2	49.19	8.35E+00 +/- 4.25E-01	2.13E+00	3.61E-05 +/- 1.80E-05	
3	60.18	5.13E-01 +/- 2.10E-01	2.00E+00	8.08E-05 +/- 2.79E-05	
4	1112.12	1.72E-02 +/- 1.22E-02	1.24E+00	1.27E-04 +/- 4.65E-06	
5	2236.00	1.00E+02 +/- 1.49E+00	1.17E+00	1.32E-04 +/- 3.24E-05	

Segment: 4

Detector: DET01 (# 1)

Position: 4

Elapsed Live Time: 114.27 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.173 +/- 0.0070
SE-75	264.65	0.000 +/- 0.0000	0.293 +/- 0.0064
SE-75	279.53	0.000 +/- 0.0000	0.302 +/- 0.0070
SE-75	400.65	0.000 +/- 0.0000	0.374 +/- 0.0095

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.10	6.99E+00 +/- 4.42E-01	2.22E+00	9.12E-06 +/- 2.39E-05
2	60.19	9.18E-01 +/- 2.49E-01	2.08E+00	3.63E-05 +/- 5.77E-05
3	279.54	1.80E-01 +/- 9.86E-02	1.52E+00	4.11E-04 +/- 2.31E-05
4	400.66	8.32E-02 +/- 4.71E-02	1.42E+00	3.02E-04 +/- 1.76E-05
5	413.70	6.77E-02 +/- 4.47E-02	1.41E+00	2.94E-04 +/- 1.78E-05
6	512.06	2.11E-01 +/- 6.53E-02	1.37E+00	2.40E-04 +/- 1.65E-05
7	662.42	5.58E-02 +/- 2.81E-02	1.32E+00	1.90E-04 +/- 1.13E-05
8	964.13	4.96E-02 +/- 2.59E-02	1.26E+00	1.40E-04 +/- 6.55E-06
9	1408.01	1.72E-02 +/- 1.22E-02	1.21E+00	1.06E-04 +/- 7.05E-06
10	2236.00	1.00E+02 +/- 1.49E+00	1.17E+00	7.00E-05 +/- 3.84E-05

Segment: 5 Detector: DET01 (# 1) Position: 5

Elapsed Live Time: 114.22 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.255 +/- 0.0087
SE-75	264.65	0.000 +/- 0.0000	0.363 +/- 0.0078
SE-75	279.53	0.000 +/- 0.0000	0.381 +/- 0.0087
SE-75	400.65	0.000 +/- 0.0000	0.434 +/- 0.0109

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.05	7.69E+00 +/-	4.87E-01	1.90E+00 1.39E-05 +/- 3.94E-05
2	60.19	3.70E+00 +/-	3.50E-01	1.80E+00 4.80E-05 +/- 8.24E-05
3	512.19	2.20E-01 +/-	6.65E-02	1.31E+00 2.37E-04 +/- 1.79E-05
4	964.13	2.10E-02 +/-	1.61E-02	1.21E+00 1.39E-04 +/- 6.40E-06
5	1001.03	3.90E-02 +/-	3.26E-02	1.21E+00 1.35E-04 +/- 6.17E-06
6	1112.12	2.60E-02 +/-	1.99E-02	1.20E+00 1.23E-04 +/- 5.54E-06
7	2236.00	1.00E+02 +/-	1.50E+00	1.14E+00 5.76E-05 +/- 3.29E-05

Segment: 6

Detector: DET01 (# 1)

Position: 6

Elapsed Live Time: 114.12 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.247 +/- 0.0085
SE-75	264.65	0.000 +/- 0.0000	0.336 +/- 0.0073
SE-75	279.53	0.000 +/- 0.0000	0.341 +/- 0.0079
SE-75	400.65	0.000 +/- 0.0000	0.402 +/- 0.0102

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.12	3.69E-01 +/-	1.08E-01	2.37E+00 4.84E-07 +/- 3.03E-06
2	49.14	8.18E+00 +/-	5.53E-01	1.93E+00 1.93E-05 +/- 5.20E-05
3	60.18	1.50E+01 +/-	5.85E-01	1.82E+00 6.08E-05 +/- 9.94E-05
4	99.76	9.47E-01 +/-	3.37E-01	1.68E+00 3.08E-04 +/- 7.38E-05
5	129.29	7.78E-01 +/-	2.96E-01	1.63E+00 4.31E-04 +/- 2.73E-05
6	244.70	1.51E-01 +/-	1.04E-01	1.49E+00 4.43E-04 +/- 3.54E-05
7	375.87	2.05E-01 +/-	6.06E-02	1.40E+00 3.33E-04 +/- 1.84E-05
8	400.66	8.63E-02 +/-	5.81E-02	1.39E+00 3.17E-04 +/- 1.92E-05
9	413.70	2.13E-01 +/-	6.42E-02	1.38E+00 3.09E-04 +/- 1.95E-05
10	722.01	4.19E-02 +/-	2.42E-02	1.28E+00 1.95E-04 +/- 1.05E-05
11	778.90	2.39E-02 +/-	2.12E-02	1.27E+00 1.83E-04 +/- 8.99E-06
12	2236.00	1.00E+02 +/-	1.50E+00	1.16E+00 4.34E-05 +/- 2.42E-05

Segment: 7

Detector: DET01 (# 1)

Position: 7

Elapsed Live Time: 113.86 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.192 +/- 0.0068
SE-75	264.65	0.000 +/- 0.0000	0.289 +/- 0.0063
SE-75	279.53	0.000 +/- 0.0000	0.290 +/- 0.0068
SE-75	400.65	0.000 +/- 0.0000	0.352 +/- 0.0091

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.05	4.63E-01 +/- 1.55E-01	2.69E+00	4.95E-09 +/- 2.83E-08
2	49.38	6.73E+00 +/- 6.79E-01	2.13E+00	2.49E-06 +/- 6.04E-06
3	60.17	3.65E+01 +/- 9.20E-01	2.00E+00	1.60E-05 +/- 2.39E-05
4	99.87	3.76E+00 +/- 5.26E-01	1.82E+00	2.47E-04 +/- 5.45E-05
5	111.73	6.07E-01 +/- 3.36E-01	1.80E+00	3.35E-04 +/- 3.48E-05
6	129.29	2.78E+00 +/- 3.21E-01	1.77E+00	4.41E-04 +/- 2.71E-05
7	152.68	4.30E-01 +/- 2.27E-01	1.72E+00	5.26E-04 +/- 5.21E-05
8	208.69	6.24E-01 +/- 1.64E-01	1.62E+00	5.47E-04 +/- 5.32E-05
9	311.90	1.66E-01 +/- 1.03E-01	1.51E+00	4.17E-04 +/- 1.86E-05
10	333.54	3.62E-01 +/- 1.14E-01	1.50E+00	3.91E-04 +/- 1.76E-05
11	345.74	2.61E-01 +/- 8.23E-02	1.49E+00	3.78E-04 +/- 1.76E-05
12	375.75	5.00E-01 +/- 1.22E-01	1.47E+00	3.48E-04 +/- 1.82E-05
13	380.68	2.31E-01 +/- 7.85E-02	1.46E+00	3.44E-04 +/- 1.83E-05
14	413.70	7.96E-01 +/- 9.90E-02	1.44E+00	3.17E-04 +/- 1.88E-05
15	662.42	4.87E-02 +/- 3.53E-02	1.34E+00	2.03E-04 +/- 1.17E-05
16	722.01	9.52E-02 +/- 2.87E-02	1.32E+00	1.89E-04 +/- 9.99E-06
17	778.90	3.32E-02 +/- 2.62E-02	1.31E+00	1.77E-04 +/- 8.73E-06
18	1001.03	8.66E-03 +/- 8.66E-03	1.27E+00	1.45E-04 +/- 6.33E-06
19	2236.00	1.00E+02 +/- 1.50E+00	1.18E+00	5.07E-05 +/- 2.69E-05

Segment: 8

Detector: DET01 (# 1)

Position: 8

Elapsed Live Time: 113.54 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.082 +/- 0.0048
SE-75	264.65	0.000 +/- 0.0000	0.145 +/- 0.0033
SE-75	279.53	0.000 +/- 0.0000	0.150 +/- 0.0039
SE-75	400.65	0.000 +/- 0.0000	0.192 +/- 0.0055

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.02	3.29E-01 +/-	1.31E-01	3.82E+00 7.62E-06 +/- 7.42E-06
2	49.26	6.93E+00 +/-	8.14E-01	2.87E+00 5.61E-05 +/- 2.84E-05
3	60.16	5.68E+01 +/-	1.22E+00	2.66E+00 1.10E-04 +/- 3.84E-05
4	67.87	7.04E-01 +/-	3.84E-01	2.56E+00 1.54E-04 +/- 4.18E-05
5	99.93	6.37E+00 +/-	6.67E-01	2.35E+00 3.27E-04 +/- 3.28E-05
6	111.76	1.42E+00 +/-	4.40E-01	2.31E+00 3.75E-04 +/- 2.72E-05
M 7	125.93	5.48E-01 +/-	1.49E-01	2.26E+00 4.19E-04 +/- 2.31E-05
m 8	130.02	4.88E+00 +/-	4.02E-01	2.25E+00 4.29E-04 +/- 2.26E-05
9	152.68	1.60E+00 +/-	2.78E-01	2.18E+00 4.67E-04 +/- 2.32E-05
10	204.14	7.62E-01 +/-	1.79E-01	2.04E+00 4.76E-04 +/- 2.61E-05
11	208.67	1.08E+00 +/-	2.20E-01	2.03E+00 4.74E-04 +/- 2.60E-05
M 12	333.43	4.68E-01 +/-	1.15E-01	1.82E+00 3.69E-04 +/- 1.62E-05
m 13	336.56	2.04E-01 +/-	6.95E-02	1.82E+00 3.66E-04 +/- 1.60E-05
14	345.64	5.00E-01 +/-	1.07E-01	1.81E+00 3.59E-04 +/- 1.54E-05
15	375.76	1.08E+00 +/-	1.27E-01	1.78E+00 3.34E-04 +/- 1.38E-05
16	393.57	3.71E-01 +/-	8.92E-02	1.76E+00 3.21E-04 +/- 1.31E-05
17	413.70	7.45E-01 +/-	1.00E-01	1.74E+00 3.06E-04 +/- 1.25E-05
18	511.26	1.33E-01 +/-	7.56E-02	1.66E+00 2.50E-04 +/- 1.09E-05
19	778.90	1.89E-02 +/-	2.26E-02	1.51E+00 1.66E-04 +/- 8.00E-06
20	1085.91	8.71E-03 +/-	8.71E-03	1.42E+00 1.28E-04 +/- 4.75E-06
21	2236.00	1.00E+02 +/-	1.50E+00	1.29E+00 1.19E-04 +/- 2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 113.08 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.045 +/- 0.0035
SE-75	264.65	0.000 +/- 0.0000	0.105 +/- 0.0025
SE-75	279.53	0.000 +/- 0.0000	0.111 +/- 0.0031
SE-75	400.65	0.000 +/- 0.0000	0.154 +/- 0.0047

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.72	8.71E-01 +/- 2.17E-01	4.10E+00	5.16E-09 +/- 3.16E-08
2	49.61	8.68E+00 +/- 8.88E-01	3.42E+00	2.82E-06 +/- 7.09E-06
3	60.12	9.85E+01 +/- 1.74E+00	3.15E+00	1.64E-05 +/- 2.57E-05
4	67.90	1.08E+00 +/- 4.60E-01	3.02E+00	3.95E-05 +/- 4.38E-05
5	95.48	2.32E+00 +/- 8.37E-01	2.78E+00	2.07E-04 +/- 6.10E-05
6	99.72	6.74E+00 +/- 9.85E-01	2.75E+00	2.38E-04 +/- 5.52E-05
7	103.74	1.77E+00 +/- 5.89E-01	2.73E+00	2.67E-04 +/- 4.86E-05
M 8	125.90	1.59E+00 +/- 2.34E-01	2.64E+00	4.04E-04 +/- 2.41E-05
m 9	130.04	4.46E+00 +/- 4.02E-01	2.62E+00	4.24E-04 +/- 2.73E-05
10	136.00	6.40E-01 +/- 3.24E-01	2.35E+00	4.49E-04 +/- 3.41E-05
11	152.68	4.79E-01 +/- 2.50E-01	2.51E+00	4.97E-04 +/- 5.14E-05
12	208.70	7.12E-01 +/- 3.04E-01	2.27E+00	5.11E-04 +/- 5.15E-05
13	333.53	3.26E-01 +/- 1.47E-01	1.97E+00	3.59E-04 +/- 1.71E-05
14	375.73	6.82E-01 +/- 1.66E-01	1.91E+00	3.18E-04 +/- 1.78E-05
15	393.72	3.27E-01 +/- 1.14E-01	1.88E+00	3.03E-04 +/- 1.81E-05
16	400.66	2.05E-01 +/- 9.61E-02	1.88E+00	2.98E-04 +/- 1.82E-05
17	413.70	9.51E-01 +/- 1.26E-01	1.86E+00	2.88E-04 +/- 1.83E-05
18	662.42	1.05E-01 +/- 5.04E-02	1.66E+00	1.84E-04 +/- 1.12E-05
19	1085.91	4.02E-02 +/- 2.53E-02	1.48E+00	1.27E-04 +/- 5.58E-06
20	2236.00	1.00E+02 +/- 1.50E+00	1.33E+00	6.12E-05 +/- 3.31E-05

Segment: 10

Detector: DFT01 (# 1)

Position: 10

Elapsed Live Time: 109.60 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.148 +/- 0.0067
SE-75	264.65	0.000 +/- 0.0000	0.255 +/- 0.0057
SE-75	279.53	0.000 +/- 0.0000	0.270 +/- 0.0065
SE-75	400.65	0.000 +/- 0.0000	0.309 +/- 0.0083

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.05	3.54E+00 +/-	3.70E-01	3.01E+00 1.67E-05 +/- 1.65E-05
2	50.04	2.12E+01 +/-	1.78E+00	2.33E+00 8.41E-05 +/- 4.22E-05
3	60.14	5.36E+02 +/-	6.94E+00	2.19E+00 1.37E-04 +/- 4.88E-05
4	99.61	6.38E+01 +/-	1.65E+00	1.98E+00 3.31E-04 +/- 3.39E-05
5	103.66	1.33E+01 +/-	2.34E+00	1.96E+00 3.46E-04 +/- 3.15E-05
M 6	111.71	5.26E+00 +/-	3.81E-01	1.94E+00 3.72E-04 +/- 2.73E-05
m 7	114.89	8.86E+00 +/-	4.31E-01	1.94E+00 3.81E-04 +/- 2.60E-05
m 8	117.71	6.93E+00 +/-	3.89E-01	1.93E+00 3.88E-04 +/- 2.49E-05
m 9	121.44	2.56E+00 +/-	2.99E-01	1.92E+00 3.98E-04 +/- 2.38E-05
m 10	123.64	8.77E+00 +/-	4.24E-01	1.92E+00 4.03E-04 +/- 2.32E-05
m 11	125.94	3.13E+01 +/-	8.88E-01	1.91E+00 4.08E-04 +/- 2.27E-05
m 12	129.96	1.32E+01 +/-	4.97E-01	1.91E+00 4.16E-04 +/- 2.21E-05
13	148.57	5.80E+00 +/-	7.12E-01	1.86E+00 4.43E-04 +/- 2.22E-05
14	170.19	2.29E+00 +/-	4.98E-01	1.80E+00 4.58E-04 +/- 2.41E-05
15	208.67	1.73E+01 +/-	6.64E-01	1.71E+00 4.56E-04 +/- 2.51E-05
16	221.88	5.55E-01 +/-	3.15E-01	1.68E+00 4.50E-04 +/- 2.46E-05
17	268.32	1.22E+00 +/-	4.81E-01	1.60E+00 4.20E-04 +/- 2.12E-05
18	300.10	5.99E-01 +/-	2.76E-01	1.57E+00 3.96E-04 +/- 1.86E-05
19	311.90	3.97E+00 +/-	3.83E-01	1.56E+00 3.87E-04 +/- 1.76E-05
20	323.21	2.12E+00 +/-	3.17E-01	1.55E+00 3.78E-04 +/- 1.68E-05
M 21	333.21	4.39E+00 +/-	2.91E-01	1.55E+00 3.71E-04 +/- 1.62E-05
m 22	336.10	7.35E+00 +/-	4.19E-01	1.55E+00 3.69E-04 +/- 1.60E-05
23	345.64	1.37E+00 +/-	2.81E-01	1.54E+00 3.62E-04 +/- 1.54E-05
24	369.23	3.82E+00 +/-	3.45E-01	1.53E+00 3.45E-04 +/- 1.43E-05
25	375.82	4.85E+00 +/-	3.90E-01	1.52E+00 3.40E-04 +/- 1.40E-05
26	393.61	1.47E+00 +/-	2.44E-01	1.52E+00 3.28E-04 +/- 1.34E-05
27	413.70	5.13E+00 +/-	2.69E-01	1.50E+00 3.15E-04 +/- 1.29E-05
M 28	419.94	1.64E-01 +/-	7.74E-02	1.50E+00 3.11E-04 +/- 1.27E-05
m 29	423.37	3.72E-01 +/-	1.28E-01	1.50E+00 3.09E-04 +/- 1.27E-05
m 30	427.41	3.21E-01 +/-	1.15E-01	1.50E+00 3.07E-04 +/- 1.26E-05
31	452.26	6.64E-01 +/-	1.69E-01	1.48E+00 2.92E-04 +/- 1.22E-05
32	517.04	1.63E-01 +/-	9.30E-02	1.45E+00 2.60E-04 +/- 1.16E-05
33	619.54	6.86E-01 +/-	1.34E-01	1.40E+00 2.19E-04 +/- 1.08E-05
34	653.76	4.19E-01 +/-	9.75E-02	1.39E+00 2.08E-04 +/- 1.04E-05
35	662.42	3.68E+00 +/-	2.02E-01	1.39E+00 2.06E-04 +/- 1.03E-05
36	689.45	1.37E-01 +/-	8.62E-02	1.38E+00 1.98E-04 +/- 9.97E-06
37	722.01	2.13E+00 +/-	1.45E-01	1.37E+00 1.89E-04 +/- 9.55E-06
38	1112.12	2.96E-02 +/-	1.98E-02	1.28E+00 1.29E-04 +/- 4.78E-06
39	1333.75	9.10E-02 +/-	2.88E-02	1.26E+00 1.12E-04 +/- 5.84E-06
40	2236.00	1.00E+02 +/-	1.53E+00	1.20E+00 9.04E-05 +/- 2.29E-05
41	2244.20	1.04E-01 +/-	6.69E-02	1.20E+00 9.04E-05 +/- 2.31E-05

Segment: 11

Detector: DET01 (# 1)

Position: 11

Elapsed Live Time: 99.16 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.285 +/- 0.0117
SE-75	264.65	0.000 +/- 0.0000	0.412 +/- 0.0094
SE-75	279.53	0.000 +/- 0.0000	0.409 +/- 0.0100
SE-75	400.65	0.000 +/- 0.0000	0.477 +/- 0.0128

PEAK ANALYSIS RESULTS				
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.07	6.78E+00 +/-	5.58E-01	2.21E+00 1.33E-03 +/- 8.57E-03
2	50.07	1.28E+02 +/-	3.82E+00	1.80E+00 6.00E-04 +/- 1.59E-03
3	60.12	2.32E+03 +/-	2.96E+01	1.72E+00 5.03E-04 +/- 8.49E-04
4	99.58	2.02E+02 +/-	3.81E+00	1.60E+00 4.09E-04 +/- 1.02E-04
5	103.63	6.27E+01 +/-	4.53E+00	1.59E+00 4.07E-04 +/- 7.87E-05
M 6	111.68	7.84E+00 +/-	8.71E-01	1.58E+00 4.03E-04 +/- 4.47E-05
m 7	114.78	1.12E+01 +/-	1.12E+00	1.58E+00 4.02E-04 +/- 3.55E-05
M 8	123.67	2.19E+01 +/-	7.70E-01	1.57E+00 4.00E-04 +/- 2.34E-05
m 9	125.91	1.04E+02 +/-	2.08E+00	1.56E+00 4.00E-04 +/- 2.37E-05
m 10	129.92	3.66E+01 +/-	9.39E-01	1.56E+00 3.99E-04 +/- 2.63E-05
11	148.57	2.76E+01 +/-	1.30E+00	1.53E+00 3.97E-04 +/- 4.23E-05
12	170.17	4.39E+00 +/-	9.40E-01	1.49E+00 3.95E-04 +/- 4.94E-05
13	204.16	2.30E+00 +/-	6.05E-01	1.45E+00 3.89E-04 +/- 4.47E-05
14	208.65	5.78E+01 +/-	1.36E+00	1.44E+00 3.88E-04 +/- 4.34E-05
15	222.07	2.52E+00 +/-	4.35E-01	1.42E+00 3.85E-04 +/- 3.90E-05
16	256.00	1.07E+00 +/-	6.04E-01	1.38E+00 3.74E-04 +/- 2.77E-05
M 17	264.33	8.11E-01 +/-	2.29E-01	1.38E+00 3.71E-04 +/- 2.53E-05
m 18	268.17	2.57E+00 +/-	4.21E-01	1.38E+00 3.70E-04 +/- 2.43E-05
19	276.12	1.49E+00 +/-	6.21E-01	1.38E+00 3.67E-04 +/- 2.23E-05
20	300.10	2.07E+00 +/-	5.52E-01	1.36E+00 3.57E-04 +/- 1.80E-05
21	311.90	1.19E+01 +/-	5.96E-01	1.36E+00 3.53E-04 +/- 1.69E-05
22	323.16	9.20E+00 +/-	5.86E-01	1.35E+00 3.48E-04 +/- 1.64E-05
M 23	333.16	1.32E+01 +/-	5.16E-01	1.34E+00 3.44E-04 +/- 1.63E-05
m 24	336.07	2.64E+01 +/-	8.48E-01	1.34E+00 3.42E-04 +/- 1.63E-05
25	345.65	3.98E+00 +/-	4.80E-01	1.34E+00 3.38E-04 +/- 1.66E-05
26	369.19	1.35E+01 +/-	6.10E-01	1.32E+00 3.28E-04 +/- 1.76E-05
27	375.86	1.15E+01 +/-	7.55E-01	1.32E+00 3.25E-04 +/- 1.79E-05
M 28	380.75	1.27E+00 +/-	2.53E-01	1.32E+00 3.23E-04 +/- 1.81E-05
m 29	383.65	2.22E+00 +/-	3.21E-01	1.32E+00 3.21E-04 +/- 1.83E-05
30	393.56	6.13E+00 +/-	4.49E-01	1.31E+00 3.17E-04 +/- 1.87E-05
31	413.70	1.37E+01 +/-	4.99E-01	1.30E+00 3.08E-04 +/- 1.94E-05
M 32	420.14	5.68E-01 +/-	1.64E-01	1.30E+00 3.05E-04 +/- 1.96E-05
m 33	423.56	4.21E-01 +/-	1.40E-01	1.30E+00 3.04E-04 +/- 1.97E-05
m 34	427.09	1.00E+00 +/-	2.12E-01	1.30E+00 3.02E-04 +/- 1.97E-05
35	452.21	1.23E+00 +/-	2.25E-01	1.29E+00 2.92E-04 +/- 2.00E-05
36	598.17	2.35E-01 +/-	1.17E-01	1.25E+00 2.35E-04 +/- 1.58E-05
37	619.79	1.91E+00 +/-	1.90E-01	1.24E+00 2.28E-04 +/- 1.48E-05

38	653.71	9.20E-01	+/-	2.07E-01	1.24E+00	2.17E-04	+/-	1.34E-05
39	662.42	1.13E+01	+/-	3.93E-01	1.24E+00	2.15E-04	+/-	1.30E-05
40	689.48	9.25E-01	+/-	1.35E-01	1.23E+00	2.06E-04	+/-	1.19E-05
41	710.24	1.43E-01	+/-	8.13E-02	1.23E+00	2.01E-04	+/-	1.12E-05
42	722.01	6.22E+00	+/-	2.77E-01	1.22E+00	1.97E-04	+/-	1.08E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)		
43	738.16	1.38E-01 +/- 7.87E-02	1.22E+00	1.93E-04 +/- 1.02E-05		
44	1275.07	3.02E-01 +/- 8.14E-02	1.16E+00	1.05E-04 +/- 5.03E-06		
45	2236.00	1.00E+02 +/- 1.62E+00	1.12E+00	5.79E-05 +/- 3.30E-05		
46	2295.41	3.68E-01 +/- 8.92E-02	1.12E+00	5.67E-05 +/- 3.53E-05		

Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 99.50 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.365 +/- 0.0136
SE-75	264.65	0.000 +/- 0.0000	0.545 +/- 0.0123
SE-75	279.53	0.000 +/- 0.0000	0.545 +/- 0.0130
SE-75	400.65	0.000 +/- 0.0000	0.603 +/- 0.0156

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.05	4.56E+00 +/- 4.35E-01	1.93E+00	2.39E-09 +/- 1.47E-08
2	50.13	1.46E+02 +/- 4.01E+00	1.63E+00	2.13E-06 +/- 5.36E-06
3	60.12	2.34E+03 +/- 2.97E+01	1.56E+00	1.29E-05 +/- 2.07E-05
4	99.58	1.88E+02 +/- 3.62E+00	1.47E+00	2.34E-04 +/- 5.57E-05
5	103.63	6.33E+01 +/- 4.38E+00	1.46E+00	2.66E-04 +/- 4.94E-05
M 6	111.69	1.42E+01 +/- 6.78E-01	1.45E+00	3.26E-04 +/- 3.52E-05
m 7	114.91	2.68E+01 +/- 8.20E-01	1.45E+00	3.48E-04 +/- 3.00E-05
m 8	117.83	1.95E+01 +/- 7.01E-01	1.45E+00	3.67E-04 +/- 2.63E-05
m 9	121.09	3.16E+00 +/- 4.66E-01	1.44E+00	3.88E-04 +/- 2.39E-05
m 10	123.58	2.36E+01 +/- 7.60E-01	1.44E+00	4.03E-04 +/- 2.36E-05
m 11	125.92	1.02E+02 +/- 1.98E+00	1.44E+00	4.16E-04 +/- 2.45E-05
m 12	129.91	3.69E+01 +/- 9.20E-01	1.44E+00	4.37E-04 +/- 2.81E-05
13	148.57	2.47E+01 +/- 1.24E+00	1.41E+00	5.08E-04 +/- 5.12E-05
14	170.18	5.71E+00 +/- 8.83E-01	1.37E+00	5.44E-04 +/- 6.39E-05
15	196.23	1.27E+00 +/- 5.85E-01	1.33E+00	5.42E-04 +/- 6.06E-05
16	208.65	5.56E+01 +/- 1.27E+00	1.31E+00	5.31E-04 +/- 5.53E-05
17	221.99	2.84E+00 +/- 5.23E-01	1.30E+00	5.15E-04 +/- 4.86E-05
18	268.15	2.16E+00 +/- 5.81E-01	1.25E+00	4.48E-04 +/- 2.73E-05
19	279.54	6.92E-01 +/- 3.74E-01	1.25E+00	4.32E-04 +/- 2.38E-05
M 20	298.19	7.73E-01 +/- 2.02E-01	1.24E+00	4.06E-04 +/- 1.97E-05
m 21	300.83	1.95E+00 +/- 3.38E-01	1.24E+00	4.03E-04 +/- 1.93E-05

22	311.90	1.11E+01	+/-	5.09E-01	1.24E+00	3.88E-04	+/-	1.81E-05
23	323.16	7.65E+00	+/-	5.66E-01	1.23E+00	3.74E-04	+/-	1.74E-05
M 24	333.17	1.19E+01	+/-	4.91E-01	1.23E+00	3.63E-04	+/-	1.72E-05
m 25	336.08	2.30E+01	+/-	7.92E-01	1.23E+00	3.59E-04	+/-	1.72E-05
26	345.67	3.58E+00	+/-	4.53E-01	1.22E+00	3.49E-04	+/-	1.72E-05
27	369.20	1.12E+01	+/-	5.86E-01	1.21E+00	3.25E-04	+/-	1.77E-05
28	375.85	1.12E+01	+/-	7.27E-01	1.21E+00	3.19E-04	+/-	1.79E-05
M 29	380.89	8.25E-01	+/-	3.56E-01	1.21E+00	3.14E-04	+/-	1.80E-05
m 30	383.33	1.44E+00	+/-	5.52E-01	1.21E+00	3.12E-04	+/-	1.80E-05
31	393.59	4.80E+00	+/-	4.11E-01	1.21E+00	3.03E-04	+/-	1.82E-05
32	413.70	1.27E+01	+/-	4.80E-01	1.20E+00	2.87E-04	+/-	1.84E-05
M 33	419.69	3.87E-01	+/-	1.42E-01	1.20E+00	2.83E-04	+/-	1.84E-05
m 34	423.32	7.24E-01	+/-	1.72E-01	1.20E+00	2.80E-04	+/-	1.84E-05
m 35	426.89	9.64E-01	+/-	1.99E-01	1.20E+00	2.78E-04	+/-	1.84E-05
36	452.17	7.33E-01	+/-	2.24E-01	1.19E+00	2.62E-04	+/-	1.82E-05
37	511.56	7.48E-01	+/-	2.15E-01	1.18E+00	2.30E-04	+/-	1.67E-05
38	619.69	2.16E+00	+/-	2.08E-01	1.16E+00	1.93E-04	+/-	1.28E-05
39	653.72	1.01E+00	+/-	1.95E-01	1.16E+00	1.84E-04	+/-	1.16E-05
40	662.42	1.05E+01	+/-	3.77E-01	1.16E+00	1.82E-04	+/-	1.13E-05
41	689.61	7.61E-01	+/-	1.32E-01	1.15E+00	1.76E-04	+/-	1.05E-05
42	722.01	5.11E+00	+/-	2.62E-01	1.15E+00	1.70E-04	+/-	9.57E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	738.05	1.42E-01 +/- 7.10E-02	1.15E+00	1.67E-04 +/- 9.18E-06
44	756.58	2.12E-01 +/- 8.16E-02	1.15E+00	1.64E-04 +/- 8.76E-06
45	844.50	1.06E-01 +/- 6.12E-02	1.14E+00	1.51E-04 +/- 7.31E-06
46	1275.45	2.42E-01 +/- 6.73E-02	1.11E+00	1.16E-04 +/- 5.27E-06
47	2236.00	1.00E+02 +/- 1.61E+00	1.08E+00	6.48E-05 +/- 3.54E-05
48	2295.39	3.80E-01 +/- 1.24E-01	1.08E+00	6.20E-05 +/- 3.70E-05

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 110.94 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.332 +/- 0.0113
SE-75	264.65	0.000 +/- 0.0000	0.484 +/- 0.0105
SE-75	279.53	0.000 +/- 0.0000	0.493 +/- 0.0114
SE-75	400.65	0.000 +/- 0.0000	0.538 +/- 0.0135

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.98	1.45E+00 +/- 2.42E-01	2.04E+00	1.68E-08 +/- 1.10E-07
2	50.30	2.40E+01 +/- 1.62E+00	1.69E+00	5.25E-06 +/- 1.39E-05
3	60.15	4.73E+02 +/- 6.19E+00	1.62E+00	2.29E-05 +/- 3.87E-05
4	99.61	3.87E+01 +/- 1.23E+00	1.52E+00	2.51E-04 +/- 6.26E-05
5	103.67	6.80E+00 +/- 1.82E+00	1.51E+00	2.79E-04 +/- 5.40E-05
M 6	123.70	3.90E+00 +/- 3.10E-01	1.49E+00	3.92E-04 +/- 2.31E-05
m 7	125.98	1.80E+01 +/- 6.86E-01	1.49E+00	4.03E-04 +/- 2.40E-05
m 8	129.97	7.50E+00 +/- 3.77E-01	1.48E+00	4.19E-04 +/- 2.77E-05
9	148.57	5.20E+00 +/- 5.45E-01	1.45E+00	4.73E-04 +/- 5.02E-05
10	170.17	7.55E-01 +/- 4.47E-01	1.42E+00	4.99E-04 +/- 6.19E-05
11	208.67	1.02E+01 +/- 4.88E-01	1.36E+00	4.88E-04 +/- 5.34E-05
12	311.90	2.36E+00 +/- 2.38E-01	1.28E+00	3.74E-04 +/- 1.79E-05
13	323.15	1.24E+00 +/- 2.91E-01	1.28E+00	3.63E-04 +/- 1.74E-05
M 14	333.14	2.21E+00 +/- 2.09E-01	1.27E+00	3.53E-04 +/- 1.73E-05
m 15	336.10	3.95E+00 +/- 3.04E-01	1.27E+00	3.50E-04 +/- 1.73E-05
16	345.70	7.44E-01 +/- 1.94E-01	1.27E+00	3.41E-04 +/- 1.75E-05
17	369.18	2.11E+00 +/- 2.66E-01	1.26E+00	3.22E-04 +/- 1.83E-05
18	375.83	1.81E+00 +/- 3.11E-01	1.26E+00	3.16E-04 +/- 1.85E-05
M 19	380.90	2.60E-01 +/- 8.16E-02	1.26E+00	3.12E-04 +/- 1.87E-05

m 20	383.37	2.44E-01	+/-	7.44E-02	1.26E+00	3.11E-04	+/-	1.88E-05
21	393.52	7.49E-01	+/-	1.78E-01	1.26E+00	3.03E-04	+/-	1.90E-05
22	413.70	2.60E+00	+/-	2.21E-01	1.25E+00	2.89E-04	+/-	1.94E-05
M 23	419.93	1.78E-01	+/-	5.67E-02	1.25E+00	2.85E-04	+/-	1.95E-05
m 24	423.27	1.38E-01	+/-	4.33E-02	1.25E+00	2.83E-04	+/-	1.95E-05
25	619.67	3.36E-01	+/-	8.74E-02	1.20E+00	2.03E-04	+/-	1.38E-05
26	653.49	2.31E-01	+/-	7.18E-02	1.20E+00	1.94E-04	+/-	1.25E-05
27	662.42	1.99E+00	+/-	1.49E-01	1.20E+00	1.92E-04	+/-	1.21E-05
28	689.53	1.46E-01	+/-	5.39E-02	1.19E+00	1.86E-04	+/-	1.11E-05
29	722.01	1.08E+00	+/-	1.03E-01	1.19E+00	1.80E-04	+/-	1.01E-05
30	867.39	4.27E-02	+/-	3.31E-02	1.17E+00	1.57E-04	+/-	7.21E-06
31	1275.40	6.97E-02	+/-	3.18E-02	1.13E+00	1.16E-04	+/-	5.35E-06
32	1461.65	8.77E-02	+/-	3.21E-02	1.12E+00	1.01E-04	+/-	8.20E-06
33	2236.00	1.00E+02	+/-	1.52E+00	1.10E+00	5.36E-05	+/-	3.03E-05

Segment: 14

Detector: DET01

(# 1)

Position: 14

Elapsed Live Time: 113.44 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.385 +/- 0.0121
SE-75	264.65	0.000 +/- 0.0000	0.524 +/- 0.0112
SE-75	279.53	0.000 +/- 0.0000	0.523 +/- 0.0118
SE-75	400.65	0.000 +/- 0.0000	0.575 +/- 0.0141

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
F	1 31.95	3.37E-01	+/- 1.24E-01	1.88E+00 3.41E-06 +/- 2.06E-05
	2 60.13	9.72E+01	+/- 1.70E+00	1.53E+00 9.56E-05 +/- 1.50E-04
	3 99.54	3.41E+00	+/- 6.54E-01	1.44E+00 3.20E-04 +/- 7.48E-05
	4 129.92	1.45E+00	+/- 2.78E-01	1.41E+00 4.21E-04 +/- 2.67E-05
	5 208.72	7.29E-01	+/- 1.81E-01	1.32E+00 4.54E-04 +/- 4.69E-05
	6 333.75	3.30E-01	+/- 1.15E-01	1.25E+00 3.53E-04 +/- 1.64E-05
	7 413.70	2.10E-01	+/- 1.05E-01	1.22E+00 2.98E-04 +/- 1.80E-05
	8 964.13	4.37E-02	+/- 1.95E-02	1.14E+00 1.41E-04 +/- 6.33E-06
	9 1408.01	1.75E-02	+/- 1.23E-02	1.11E+00 1.05E-04 +/- 7.02E-06
	10 2225.57	4.80E-02	+/- 2.91E-02	1.09E+00 7.67E-05 +/- 4.10E-05
	11 2236.00	1.00E+02	+/- 1.50E+00	1.09E+00 7.64E-05 +/- 4.15E-05

Segment: 15

Detector: DET01 (# 1)

Position: 15

Elapsed Live Time: 113.65 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.389 +/- 0.0119
SE-75	264.65	0.000 +/- 0.0000	0.484 +/- 0.0104
SE-75	279.53	0.000 +/- 0.0000	0.488 +/- 0.0110
SE-75	400.65	0.000 +/- 0.0000	0.535 +/- 0.0131

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.45	4.57E+00 +/- 7.56E-01	1.59E+00	1.55E-06 +/- 4.14E-06
2	60.17	7.58E+01 +/- 1.44E+00	1.52E+00	1.23E-05 +/- 2.03E-05
3	95.37	2.18E+00 +/- 5.91E-01	1.44E+00	2.03E-04 +/- 6.27E-05
4	99.54	3.22E+00 +/- 4.25E-01	1.44E+00	2.34E-04 +/- 5.72E-05
5	103.71	1.40E+00 +/- 3.79E-01	1.43E+00	2.66E-04 +/- 5.02E-05
M 6	126.38	3.44E-01 +/- 1.21E-01	1.41E+00	4.07E-04 +/- 2.40E-05
m 7	130.06	1.35E+00 +/- 2.38E-01	1.41E+00	4.24E-04 +/- 2.76E-05
8	148.57	5.25E-01 +/- 2.25E-01	1.39E+00	4.82E-04 +/- 5.01E-05
9	208.66	1.93E+00 +/- 2.05E-01	1.34E+00	4.81E-04 +/- 5.23E-05
10	272.68	1.54E-01 +/- 1.01E-01	1.30E+00	3.94E-04 +/- 2.42E-05
11	333.69	4.32E-01 +/- 1.28E-01	1.28E+00	3.24E-04 +/- 1.53E-05
12	375.68	3.10E-01 +/- 1.13E-01	1.26E+00	2.88E-04 +/- 1.59E-05
13	413.70	2.61E-01 +/- 8.45E-02	1.25E+00	2.62E-04 +/- 1.65E-05
14	778.90	4.38E-02 +/- 1.96E-02	1.18E+00	1.56E-04 +/- 8.00E-06
15	1112.12	1.75E-02 +/- 1.24E-02	1.15E+00	1.18E-04 +/- 5.22E-06
16	1333.97	7.79E-02 +/- 2.95E-02	1.13E+00	9.74E-05 +/- 5.42E-06
17	1408.01	1.75E-02 +/- 1.24E-02	1.13E+00	9.07E-05 +/- 6.42E-06
18	2236.00	1.00E+02 +/- 1.50E+00	1.10E+00	3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01 (# 1)

Position: 16

Elapsed Live Time: 113.85 sec Elapsed Real Time: 115.00 sec

		TRANSMISSION RESULTS	
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.416 +/- 0.0123
SE-75	264.65	0.000 +/- 0.0000	0.495 +/- 0.0106
SE-75	279.53	0.000 +/- 0.0000	0.504 +/- 0.0114
SE-75	400.65	0.000 +/- 0.0000	0.549 +/- 0.0135

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.39	5.17E+00 +/- 7.81E-01	1.54E+00	2.90E-05 +/- 1.80E-05
2	60.17	4.43E+01 +/- 9.43E-01	1.48E+00	5.62E-05 +/- 2.41E-05
3	95.12	1.12E+00 +/- 5.00E-01	1.41E+00	1.58E-04 +/- 2.22E-05
4	99.42	2.17E+00 +/- 4.65E-01	1.40E+00	1.69E-04 +/- 2.09E-05
M 5	125.95	4.38E-01 +/- 1.28E-01	1.38E+00	2.22E-04 +/- 1.49E-05
m 6	130.01	1.48E+00 +/- 2.35E-01	1.37E+00	2.28E-04 +/- 1.46E-05
7	208.64	1.06E+00 +/- 1.92E-01	1.32E+00	2.62E-04 +/- 1.78E-05
8	375.81	2.69E-01 +/- 9.86E-02	1.25E+00	1.94E-04 +/- 9.72E-06
9	413.70	3.63E-01 +/- 9.76E-02	1.24E+00	1.79E-04 +/- 8.85E-06
10	778.90	4.62E-02 +/- 3.19E-02	1.17E+00	9.86E-05 +/- 6.05E-06
11	867.39	4.40E-02 +/- 2.95E-02	1.16E+00	8.96E-05 +/- 5.22E-06
12	1333.56	1.05E-01 +/- 3.03E-02	1.13E+00	6.64E-05 +/- 4.06E-06
13	2236.00	1.00E+02 +/- 1.50E+00	1.10E+00	6.28E-05 +/- 1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: LL85001792
Peak Locate Performed on: 12-19-07 2:47:20 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.74	0.1493	32.03	19.41
2	100.55	0.1067	49.94	28.77
3	120.93	0.0273	60.13	583.64
4	136.18	0.2774	67.76	6.50
5	199.85	0.0474	99.59	199.36
6	207.95	0.0444	103.64	220.41
7	223.78	0.1411	111.63	22.46
8	230.33	0.1316	114.91	24.69
9	236.94	0.1818	117.75	13.02
10	247.27	0.2096	123.64	16.66
11	252.62	0.0634	125.93	108.87
12	260.50	0.2096	129.95	16.66
13	294.96	0.1162	147.14	35.01
14	331.27	0.1821	165.30	13.84
15	341.02	0.1374	170.17	23.85
16	417.98	0.0644	208.66	100.78
17	444.66	0.1961	222.00	11.13
18	537.14	0.1847	268.23	12.20
19	587.84	0.3112	293.59	5.03
20	602.35	0.2096	300.84	9.67
21	625.79	0.1007	312.56	38.84
22	646.96	0.1224	323.15	27.07
23	666.80	0.1167	333.20	35.00
24	672.98	0.0862	336.09	57.25
25	692.01	0.1217	345.67	28.25
26	739.05	0.1106	369.19	34.11
27	752.31	0.0952	375.82	39.14
28	787.83	0.1296	393.58	22.77
29	829.44	0.0894	414.39	44.25
30	840.66	0.2479	420.00	7.32
31	847.40	0.2155	423.40	8.89
32	854.80	0.2027	427.05	10.12
33	905.03	0.1860	452.18	12.15
34	1024.09	0.2079	511.71	6.40
35	1240.15	0.1544	619.74	15.29
36	1308.06	0.1743	653.70	12.36

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	1326.90	0.0943	663.11	40.18
38	1379.72	0.1844	689.53	10.28
39	1446.18	0.1122	722.76	27.10
40	2668.22	0.2148	1333.78	6.75
41	4473.26	0.0266	2236.30	406.97
42	4591.49	0.2284	2295.41	6.04

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: LL85001792
 Peak Analysis Performed on: 12-19-07 2:47:20 PM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area Uncert.	Continuum Counts
1	61-	67	64.74	32.03	1.53E+03	81.37		2.23E+03
2	94-	105	100.55	49.94	3.26E+04	552.91		1.02E+05
3	114-	127	120.93	60.13	6.16E+05	958.41		1.10E+05
4	129-	142	136.18	67.76	9.47E+02	238.12		2.01E+04
5	197-	203	199.85	99.59	5.39E+04	457.59		7.57E+04
6	203-	214	207.95	103.64	1.19E+04	716.78		1.33E+05
M	7	218-	243	223.92	111.63	5.07E+03	164.88	2.62E+04
m	8	218-	243	230.49	114.91	8.21E+03	204.38	2.85E+04
m	9	218-	243	236.17	117.75	4.92E+03	163.09	2.85E+04
M	10	245-	264	247.94	123.64	5.33E+03	119.85	1.24E+04
m	11	245-	264	252.52	125.93	2.56E+04	257.51	1.04E+04
m	12	245-	264	260.56	129.95	1.13E+04	150.31	7.64E+03
13	287-	301	294.96	147.14	6.24E+03	224.03		1.53E+04
14	329-	336	331.27	165.30	2.64E+02	122.97		7.33E+03
15	336-	348	341.02	170.17	1.18E+03	172.67		1.09E+04
16	413-	425	417.98	208.66	1.50E+04	188.81		7.79E+03
17	442-	447	444.66	222.00	5.39E+02	67.78		2.30E+03
18	534-	544	537.14	268.23	3.84E+02	88.03		3.06E+03
19	580-	590	587.84	293.59	1.48E+02	77.34		2.45E+03
20	594-	609	602.35	300.84	7.37E+02	104.95		3.42E+03
21	620-	633	625.79	312.56	3.04E+03	103.18		2.74E+03
22	639-	654	646.96	323.15	2.06E+03	104.76		2.97E+03
M	23	659-	680	667.06	333.20	3.37E+03	80.32	1.54E+03
m	24	659-	680	672.84	336.09	6.15E+03	120.50	1.90E+03
25	687-	699	692.01	345.67	1.10E+03	84.33		2.25E+03
26	731-	746	739.05	369.19	3.10E+03	100.13		2.30E+03
27	746-	759	752.31	375.82	3.44E+03	117.63		3.78E+03
28	780-	795	787.83	393.58	1.45E+03	75.34		1.41E+03
29	824-	837	829.44	414.39	3.61E+03	87.33		1.39E+03
M	30	837-	858	840.67	420.00	1.10E+02	25.02	7.43E+02
m	31	837-	858	847.47	423.40	2.11E+02	31.14	6.32E+02
m	32	837-	858	854.76	427.05	2.63E+02	34.50	5.22E+02
33	902-	910	905.03	452.18	2.78E+02	41.05		6.44E+02
34	1016-	1032	1024.09	511.71	4.41E+02	52.08		7.24E+02
35	1231-	1248	1240.15	619.74	5.50E+02	39.84		3.19E+02
36	1302-	1316	1308.06	653.70	2.34E+02	33.11		2.93E+02
37	1322-	1335	1326.90	663.11	2.75E+03	58.57		2.44E+02

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	1373-	1385	1379.72	689.53	1.90E+02	27.53		2.12E+02
39	1437-	1454	1446.18	722.76	1.47E+03	46.26		2.05E+02
40	2663-	2673	2668.22	1333.78	6.90E+01	11.02		2.20E+01
41	4465-	4483	4473.26	2236.30	1.80E+05	425.81		3.84E+02
42	4587-	4596	4591.49	2295.41	6.77E+01	14.62		5.23E+01

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: LL85001792
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	0.994	2236.00*	100.00	7.729E+02	1.820E+02
Np-237	0.968	300.10*	6.63	1.099E+01	1.567E+00
		311.90*	38.60	7.959E+00	2.779E-01
Pu-239	0.967	413.70*	0.00	2.989E+05	9.132E+03
Pu-239A	0.970	129.29*	0.01	1.899E+05	5.235E+03
Am-241	0.966	662.42*	0.00	1.226E+06	2.865E+04
Am-241D	0.961	722.01*	0.00	1.434E+06	4.721E+04
Pu-241	0.866	148.57*	0.00	3.159E+06	1.289E+05

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-19-07 2:47:20 PM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	32.03	1.3677E+01	5.32
2	49.94	2.9081E+02	1.72
3	60.13	5.4989E+03	0.30
4	67.76	8.4542E+00	25.14
5	99.59	4.8107E+02	0.89
6	103.64	1.0596E+02	6.04
M 7	111.63	4.5250E+01	3.26
m 8	114.91	7.3326E+01	2.50
m 9	117.75	4.3943E+01	3.32
M 10	123.64	4.7587E+01	2.26
m 11	125.93	2.2833E+02	1.04
14	165.30	2.3577E+00	46.56
15	170.17	1.0552E+01	14.61
16	208.66	1.3426E+02	1.28
17	222.00	4.8096E+00	12.58
18	268.23	3.4273E+00	22.93
19	293.59	1.3225E+00	52.20
22	323.15	1.8398E+01	5.09
M 23	333.20	3.0091E+01	2.40
m 24	336.09	5.4925E+01	1.98
25	345.67	9.7847E+00	7.70
26	369.19	2.7692E+01	3.24
27	375.82	3.0720E+01	3.43
28	393.58	1.2953E+01	5.20
M 30	420.00	9.8513E-01	22.67
m 31	423.40	1.8802E+00	14.79
m 32	427.05	2.3512E+00	13.10
33	452.18	2.4844E+00	14.75
34	511.71	3.9333E+00	11.82
35	619.74	4.9087E+00	7.25
36	653.70	2.0920E+00	14.13
38	689.53	1.6965E+00	14.49
40	1333.78	6.1591E-01	15.97
42	2295.41	6.0445E-01	21.60

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	8.58E+02 +/- 1.29E+02		2.26E-02 +/- 3.39E-03	
SE-75	< 2.61E-01 +/- 1.78E-02	<	6.87E-06 +/- 4.67E-07	
EU-152x	< 2.72E-01 +/- 1.90E-02	<	7.16E-06 +/- 5.01E-07	
U-233	3.90E+03 +/- 2.00E+03		1.03E-01 +/- 5.27E-02	
U-235	< 3.56E-01 +/- 4.46E-02	<	9.37E-06 +/- 1.17E-06	
Np-237	7.41E+00 +/- 3.00E-01		1.95E-04 +/- 7.91E-06	
Pu-238	3.26E+04 +/- 5.82E+03		8.58E-01 +/- 1.53E-01	
U-238	1.37E+00 +/- 9.76E-01		3.61E-05 +/- 2.57E-05	
Pu-239	3.03E+05 +/- 1.18E+04		7.97E+00 +/- 3.09E-01	
Pu-239A	1.87E+05 +/- 6.44E+03		4.93E+00 +/- 1.69E-01	
Am-241	1.16E+06 +/- 4.74E+04		3.04E+01 +/- 1.25E+00	
Am-241D	1.33E+06 +/- 5.66E+04		3.51E+01 +/- 1.49E+00	
Pu-241	3.15E+06 +/- 2.23E+05		8.29E+01 +/- 5.88E+00	

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

U-233	4.06E-01	+/-	2.08E-01	
Np-237	1.05E-02	+/-	4.27E-04	
Pu-238	1.90E-03	+/-	3.40E-04	
U-238	4.09E+00	+/-	2.91E+00	
Pu-239	4.87E+00	+/-	1.89E-01	
Pu-239A	3.01E+00	+/-	1.04E-01	
Am-241	3.38E-01	+/-	1.38E-02	
Pu-241	3.05E-02	+/-	2.16E-03	

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	7.73E+02 +/-	1.82E+02	2.03E-02 +/-	4.79E-03
SE-75	< 6.24E-01 +/-	5.84E-03	< 1.64E-05 +/-	1.54E-07
EU-152x	< 6.87E-01 +/-	1.27E-02	< 1.81E-05 +/-	3.35E-07
U-233	< 3.59E+04 +/-	7.87E+02	< 9.44E-01 +/-	2.07E-02
U-235	< 8.53E-01 +/-	1.97E-02	< 2.24E-05 +/-	5.18E-07
Np-237	8.05E+00 +/-	2.74E-01	2.12E-04 +/-	7.20E-06
Pu-238	< 7.54E+04 +/-	1.46E+03	< 1.98E+00 +/-	3.86E-02
U-238	< 1.77E+01 +/-	2.82E-01	< 4.65E-04 +/-	7.42E-06
Pu-239	2.99E+05 +/-	9.13E+03	7.87E+00 +/-	2.40E-01
Pu-239A	1.90E+05 +/-	5.24E+03	5.00E+00 +/-	1.38E-01
Am-241	1.23E+06 +/-	2.86E+04	3.23E+01 +/-	7.54E-01
Am-241D	1.43E+06 +/-	4.72E+04	3.77E+01 +/-	1.24E+00
Pu-241	3.16E+06 +/-	1.29E+05	8.31E+01 +/-	3.39E+00

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)		
Np-237	1.14E-02	+/-	3.89E-04
Pu-239	4.81E+00	+/-	1.47E-01
Pu-239A	3.06E+00	+/-	8.43E-02
Am-241	3.58E-01	+/-	8.36E-03
Pu-241	3.05E-02	+/-	1.25E-03

Final Non-Uniformity Results

Source Longitudinal Ratio:	0.946	+/-	9.3471
Matrix Longitudinal Ratio:	0.930	+/-	0.1297

Source Vertical Ratio:	0.887	+/-	0.4867
Matrix Vertical Ratio:	0.877	+/-	0.0245

NUDS could not find the transmission peak in one radial segment.

Radioassay Data Sheet

Procedure ID & Rev: WCP-55 03/07/2002

Wed Dec 19 12:34:57 2007
Software Version: GWAS v2.3bGEN

Drum ID	: LL85001758	Gross Weight (kg)	: 58.4
Sequence Number	: 2502	Fill Height (%)	: 100.0
Assay Date	: 12/13/07 09:32:25	Density (g/cc)	: 0.17
Batch Number	:	Net Weight (kg)	: 34.60
Site ID	:	Waste Matrix Code	:
		TRUCON	:

		Errors at 1.00 Sigma
TRU Alpha Activity Concentration:	5.80e-05	+/- 7.72e-06 Ci/g
Total Pu-239 Equiv Activity:	2.06e+00	+/- 2.67e-01 Ci
Total Pu-239 Fissile Gram Equiv:	2.32e+01	+/- 4.14e+00 g
Decay Heat:	6.38e-02	+/- 8.41e-03 W
Total Pu Mass:	2.44e+01	+/- 4.15e+00 g
TMU:	18.17%	
Waste Classification:	TRU	

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
------------------	---------------------	-------------------------------

Pu-238	1.56e-02	4.29e+00
Pu-239	9.34e+01	6.60e-02
Pu-240	6.48e+00	9.45e-01
Pu-241	1.17e-01	1.04e+00
Pu-242	2.76e-02	1.00e+01
Am-241	2.50e-01	7.45e-01
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	1.20e+00	1.40e+01

Activity Errors

Isotope	1.00 Sigma Mass (g)	Alpha Activity/ Error/Isotope Mass (g)	1.00 Sigma Isotope (Ci)	Error/Isotope (Ci)	MDA (g)
Pu-238	3.80e-03	7.10e-04	6.51e-02	1.22e-02	1.14e-03
Pu-239	2.28e+01	4.14e+00	1.41e+00	2.57e-01	7.86e-02
Pu-240	1.58e+00	2.88e-01	3.59e-01	6.53e-02	0.00e+00
Pu-241	2.86e-02	5.21e-03	2.96e+00	5.38e-01	1.04e-03
Pu-242	6.73e-03	1.40e-03	2.64e-05	5.48e-06	0.00e+00
Am-241	5.02e-02	9.61e-03	1.72e-01	3.29e-02	3.55e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	8.10e-03	1.49e-03	5.71e-06	1.05e-06	4.57e-04
U-235	2.93e-01	6.73e-02	6.34e-07	1.46e-07	1.29e-01
*U-238	<LLD	0.00e+00	0.00e+00	0.00e+00	1.59e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	1.32e+00
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Date

12-19-07

Reviewer Signature

Date

AUTOMATED INDEPENDENT TECHNICAL REVIEW BASED ON WCP-55 03/07/2002

Software Version: GWAS v2.3bGEN
Counter Number: SGS
Data Review for Container: LL85001758
Item Description Code: \Count Type: DEBRIS
Sequence Number: 2502
Assayed on: 12/13/07 09:32:25
Report Generated: 12/19/07 12:34:42
AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

OK

REVIEW Pu-240 Wt Pct -2 Sigma error <6.36> greater than <5.87> Review MGA R
Pu-240 Wt Pct error <0.95> is within limits
Pu-238 Wt Pct error <4.29> is within limits
QFIT <1.00> is within limits

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.166> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <1.62e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <0.63> is acceptable in Segment 1
Pulser value <0.98> is within range in Segment 1
DEAD TIME percentage <0.66> is acceptable in Segment 2
Pulser value <0.99> is within range in Segment 2
DEAD TIME percentage <0.71> is acceptable in Segment 3
Pulser value <0.99> is within range in Segment 3
DEAD TIME percentage <0.95> is acceptable in Segment 4
Pulser value <0.99> is within range in Segment 4
DEAD TIME percentage <1.45> is acceptable in Segment 5
Pulser value <0.99> is within range in Segment 5
DEAD TIME percentage <1.90> is acceptable in Segment 6
Pulser value <0.99> is within range in Segment 6
DEAD TIME percentage <2.31> is acceptable in Segment 7
Pulser value <0.99> is within range in Segment 7
DEAD TIME percentage <2.73> is acceptable in Segment 8
Pulser value <0.99> is within range in Segment 8
DEAD TIME percentage <3.50> is acceptable in Segment 9
Pulser value <0.99> is within range in Segment 9
DEAD TIME percentage <4.75> is acceptable in Segment 10
Pulser value <1.00> is within range in Segment 10
DEAD TIME percentage <4.50> is acceptable in Segment 11
Pulser value <0.99> is within range in Segment 11
DEAD TIME percentage <3.28> is acceptable in Segment 12
Pulser value <1.01> is within range in Segment 12
DEAD TIME percentage <2.77> is acceptable in Segment 13
Pulser value <1.00> is within range in Segment 13
DEAD TIME percentage <2.39> is acceptable in Segment 14
Pulser value <0.99> is within range in Segment 14
DEAD TIME percentage <1.58> is acceptable in Segment 15
Pulser value <0.99> is within range in Segment 15
DEAD TIME percentage <0.97> is acceptable in Segment 16
Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
Transmission results are acceptable in Segment 2
Transmission results are acceptable in Segment 3
Transmission results are acceptable in Segment 4
Transmission results are acceptable in Segment 5
Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

All energy peaks within <3.00e+00> RCHISQ limit

Section 7 - FGE MASS REVIEW

FGE Mass <27.30> is within limits

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

Am-241 ratio <453.29> is above lower limit <200.00>
Np-237 ratio <2811.29> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <22.76> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Cs-137 Z Value <1.32> is less than limit <1.96>

OK

Independent Reviewer:



Date: 12-19-07

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS
Data Review for Container: LL85001758

Item Description Code:

Sequence Number: 2502
Assayed on: 12/13/07 09:32:25
AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA Pu-240 Wt Pct -2 Sigma error is greater than upper limit.	OK
SECTION 9 - IDC COUNT TYPE IDC is not available.	N/A

Technical Reviewer: Robert J. Haslett Jr. Date: 12-19-07

M G A R E P O R T

Report generated on:

12-19-07 11:10:42 AM

MGA version: MGA V9.5 CI

Spectrum ID: 11202502.CNF Sens : 30.0% LT: 54.8 Mins DT: 3.30
Measurement date: 12-13-07 Declared date: 12-13-07

Sample ID: LL85001758 Detector: Total counts: 3.470E+06

Pu g/cm2 = 0.2856 Cd g/cm2 = 1.8000 FWHM at 122 keV = 634 eV
QFIT = 1.00 FWHM at 208 keV = 810 eV
NQFIT = 1.00

Isotope	Relative to Pu-239	%*	%	Relative to Pu-241	%*	Isotope analysis at			
						Meas. date	Decl. date	% weight	% Err
Pu-238	0.000167	4.3	4.3	0.1328	4.3	0.01558	4.29	0.01558	4.29
Pu-239	1.000000	0.0	0.5	795.7218	1.1	93.35889	0.07	93.35889	0.07
Pu-240	0.069416	1.0	0.9	55.2360	1.3	6.48062	0.95	6.48062	0.95
Pu-241	0.001257	1.1	1.0	1.0000	0.0	0.11733	1.04	0.11733	1.04
Pu-242	(New alg.)			0.2351 (10)		0.02758 (10)		0.02758 (10)	
Am-241	0.002674	0.8	0.6	2.1274	1.1	0.24960	0.74	0.24960	0.74
U-235	0.012881	14.0	14.0			1.20252	14.03	1.20252	14.03

Pu-240 effective (meas. date) = 6.566 +/- 1.04%
Am-241 separated about 23.591 +/- 0.250 years ago
Am/Pu-241 weight ratio = 2.12743 +/- 1.15%

Messages :

Lead x-rays detected.

Pu-241/Pu-239 efficiency changed in MGACAL by 1%.

17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Gamma Waste Assay

Sample Information

File Name: C:\WAS\DATA\2600\11102502.S11
Sample ID: LL85001758 Count Sequence Number: 2502
Assay Start: 12-13-07 9:32:28 AM
Description 1:
Description 2:
Location:
Comment:
Waste Type:
Weight: Gross: 58400.0 g Net: 34600.0 g
Density: 0.166 g /ml
Container Type: 55 Gal Galv 23.8
Container: Volume: 208000. ml Full: 100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: 55 Gal Galv 23.8
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps
Geometric Correction Factor(SWCONTGCF): 0.760
Date of efficiency calibration approval: 8-27-2003 2:05:34 PM
Mu Factors response file: Lucite response
Transmission Calib. Time: 12-10-2007 3:51:07 PM 28849

Reviewed by:



Date: 12-19-07

Segment Results

Segment: 1

Detector: DET01 (# 1)

Position: 1

Elapsed Live Time: 114.28 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.222 +/- 0.0070
SE-75	264.65	0.000 +/- 0.0000	0.278 +/- 0.0042
SE-75	279.53	0.000 +/- 0.0000	0.280 +/- 0.0049
SE-75	400.65	0.000 +/- 0.0000	0.316 +/- 0.0067

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	48.96	3.17E+00 +/- 3.18E-01	2.01E+00	6.40E-07 +/- 1.96E-06
2	60.12	4.33E+00 +/- 3.07E-01	1.90E+00	6.29E-06 +/- 1.16E-05
3	311.90	9.71E-02 +/- 6.56E-02	1.54E+00	2.76E-04 +/- 1.41E-05
4	400.66	4.31E-02 +/- 3.11E-02	1.50E+00	2.10E-04 +/- 1.43E-05
5	413.70	1.44E-01 +/- 5.62E-02	1.49E+00	2.03E-04 +/- 1.44E-05
6	1001.03	2.58E-02 +/- 1.49E-02	1.30E+00	9.18E-05 +/- 4.92E-06
7	1112.12	3.14E-02 +/- 2.34E-02	1.28E+00	8.48E-05 +/- 4.39E-06
8	2236.00	1.00E+02 +/- 1.49E+00	1.20E+00	3.40E-05 +/- 2.15E-05

Segment: 2

Detector: DET01 (# 1)

Position: 2

Elapsed Live Time: 114.24 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.188 +/- 0.0064
SE-75	264.65	0.000 +/- 0.0000	0.253 +/- 0.0039
SE-75	279.53	0.000 +/- 0.0000	0.261 +/- 0.0047
SE-75	400.65	0.000 +/- 0.0000	0.295 +/- 0.0064

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.32	2.29E+00 +/- 3.48E-01	2.14E+00	8.03E-05 +/- 2.11E-04
2	60.18	4.10E+00 +/- 3.26E-01	2.01E+00	1.33E-04 +/- 2.14E-04
3	129.29	3.65E-01 +/- 1.79E-01	1.78E+00	3.88E-04 +/- 2.47E-05
4	311.90	1.23E-01 +/- 7.97E-02	1.58E+00	3.58E-04 +/- 1.69E-05
5	400.66	6.25E-02 +/- 5.18E-02	1.53E+00	2.97E-04 +/- 1.83E-05
6	867.39	7.76E-02 +/- 2.59E-02	1.34E+00	1.44E-04 +/- 6.91E-06
7	964.13	1.72E-02 +/- 1.22E-02	1.32E+00	1.32E-04 +/- 6.07E-06
8	1085.91	1.72E-02 +/- 1.22E-02	1.30E+00	1.20E-04 +/- 5.31E-06
9	1334.06	6.06E-02 +/- 2.60E-02	1.27E+00	1.05E-04 +/- 5.55E-06
10	2236.00	1.00E+02 +/- 1.49E+00	1.21E+00	9.73E-05 +/- 5.41E-05

Segment: 3

Detector: DET01 (# 1)

Position: 3

Elapsed Live Time: 114.18 sec

Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.166 +/- 0.0065
SE-75	264.65	0.000 +/- 0.0000	0.220 +/- 0.0048
SE-75	279.53	0.000 +/- 0.0000	0.223 +/- 0.0054
SE-75	400.65	0.000 +/- 0.0000	0.255 +/- 0.0069

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	48.91	3.08E+00 +/- 3.96E-01	2.25E+00	3.52E-05 +/- 1.78E-05
2	60.15	9.42E+00 +/- 4.50E-01	2.11E+00	8.07E-05 +/- 2.79E-05
3	99.39	7.78E-01 +/- 2.43E-01	1.91E+00	2.97E-04 +/- 3.03E-05
4	129.29	5.53E-01 +/- 2.05E-01	1.85E+00	4.18E-04 +/- 2.23E-05
5	345.64	1.42E-01 +/- 7.81E-02	1.64E+00	3.73E-04 +/- 1.56E-05
6	375.67	2.29E-01 +/- 7.64E-02	1.62E+00	3.46E-04 +/- 1.41E-05
7	400.66	7.35E-02 +/- 4.52E-02	1.61E+00	3.26E-04 +/- 1.32E-05
8	413.70	2.60E-01 +/- 6.07E-02	1.60E+00	3.16E-04 +/- 1.28E-05
9	778.90	3.58E-02 +/- 2.14E-02	1.42E+00	1.66E-04 +/- 8.11E-06
10	2236.00	1.00E+02 +/- 1.49E+00	1.24E+00	1.32E-04 +/- 3.24E-05

Segment: 4

Detector: DET01 (# 1)

Position: 4

Elapsed Live Time: 113.91 sec Elapsed Real Time: 115.00 sec

		TRANSMISSION RESULTS	
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.363 +/- 0.0112
SE-75	264.65	0.000 +/- 0.0000	0.435 +/- 0.0093
SE-75	279.53	0.000 +/- 0.0000	0.436 +/- 0.0099
SE-75	400.65	0.000 +/- 0.0000	0.494 +/- 0.0122

		PEAK ANALYSIS RESULTS		
Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.70	2.52E-01 +/- 1.07E-01	1.95E+00	1.03E-07 +/- 6.40E-07
2	49.54	3.67E+00 +/- 5.74E-01	1.63E+00	9.78E-06 +/- 2.51E-05
3	60.16	3.72E+01 +/- 8.63E-01	1.57E+00	3.62E-05 +/- 5.76E-05
4	99.29	3.42E+00 +/- 4.17E-01	1.47E+00	2.63E-04 +/- 6.36E-05
5	116.04	1.06E+00 +/- 3.43E-01	1.45E+00	3.57E-04 +/- 2.86E-05
M 6	125.82	3.72E-01 +/- 1.31E-01	1.44E+00	3.99E-04 +/- 2.36E-05
m 7	130.01	4.11E+00 +/- 3.65E-01	1.44E+00	4.14E-04 +/- 2.68E-05
8	204.25	3.54E-01 +/- 1.66E-01	1.38E+00	4.83E-04 +/- 5.21E-05
9	208.65	6.62E-01 +/- 2.53E-01	1.38E+00	4.80E-04 +/- 5.05E-05
10	244.70	2.47E-01 +/- 1.49E-01	1.36E+00	4.48E-04 +/- 3.50E-05
11	256.11	2.64E-01 +/- 1.42E-01	1.35E+00	4.36E-04 +/- 3.05E-05
12	300.10	1.54E-01 +/- 1.07E-01	1.34E+00	3.89E-04 +/- 1.89E-05
13	311.90	1.58E-01 +/- 1.05E-01	1.33E+00	3.77E-04 +/- 1.75E-05
14	333.47	2.88E-01 +/- 1.19E-01	1.32E+00	3.57E-04 +/- 1.65E-05
15	345.55	1.79E-01 +/- 9.72E-02	1.32E+00	3.46E-04 +/- 1.65E-05
16	375.77	1.36E+00 +/- 1.68E-01	1.30E+00	3.21E-04 +/- 1.71E-05
M 17	381.06	1.93E-01 +/- 6.52E-02	1.30E+00	3.17E-04 +/- 1.73E-05
m 18	383.47	2.74E-01 +/- 7.92E-02	1.30E+00	3.15E-04 +/- 1.73E-05
19	393.47	5.19E-01 +/- 9.07E-02	1.29E+00	3.08E-04 +/- 1.75E-05
20	413.70	1.37E+00 +/- 1.20E-01	1.29E+00	2.94E-04 +/- 1.78E-05
21	443.98	7.80E-02 +/- 4.63E-02	1.28E+00	2.75E-04 +/- 1.78E-05
22	452.27	1.53E-01 +/- 7.38E-02	1.27E+00	2.70E-04 +/- 1.78E-05
23	778.90	6.35E-02 +/- 3.01E-02	1.20E+00	1.66E-04 +/- 8.40E-06
24	867.39	3.42E-02 +/- 2.18E-02	1.19E+00	1.52E-04 +/- 7.25E-06
25	1001.03	1.73E-02 +/- 1.23E-02	1.18E+00	1.37E-04 +/- 6.33E-06
26	1112.12	5.20E-02 +/- 2.12E-02	1.17E+00	1.26E-04 +/- 5.66E-06
27	2236.00	1.00E+02 +/- 1.50E+00	1.12E+00	7.00E-05 +/- 3.84E-05

Segment: 5

Detector: DET01 (# 1)

Position: 5

Elapsed Live Time: 113.33 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.285 +/- 0.0079
SE-75	264.65	0.000 +/- 0.0000	0.372 +/- 0.0055
SE-75	279.53	0.000 +/- 0.0000	0.383 +/- 0.0065
SE-75	400.65	0.000 +/- 0.0000	0.427 +/- 0.0085

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.32	1.00E+00 +/- 2.03E-01	2.19E+00	3.06E-07 +/- 1.99E-06
2	50.17	2.86E+00 +/- 6.56E-01	1.80E+00	1.62E-05 +/- 4.37E-05
3	60.16	9.65E+01 +/- 1.62E+00	1.72E+00	4.79E-05 +/- 8.23E-05
4	99.26	4.69E+00 +/- 8.01E-01	1.60E+00	2.77E-04 +/- 7.13E-05
5	104.17	5.39E+00 +/- 5.82E-01	1.59E+00	3.04E-04 +/- 5.77E-05
6	111.69	3.11E+00 +/- 4.88E-01	1.58E+00	3.41E-04 +/- 3.82E-05
M 7	125.99	1.11E+00 +/- 1.86E-01	1.56E+00	3.97E-04 +/- 2.37E-05
m 8	129.97	1.41E+01 +/- 6.20E-01	1.56E+00	4.09E-04 +/- 2.72E-05
9	144.81	4.19E-01 +/- 2.11E-01	1.54E+00	4.43E-04 +/- 4.48E-05
10	161.62	6.46E-01 +/- 3.72E-01	1.52E+00	4.62E-04 +/- 5.67E-05
11	196.21	4.63E-01 +/- 3.25E-01	1.48E+00	4.63E-04 +/- 5.59E-05
12	204.20	1.89E+00 +/- 2.76E-01	1.48E+00	4.58E-04 +/- 5.30E-05
13	208.68	3.81E+00 +/- 3.09E-01	1.47E+00	4.56E-04 +/- 5.12E-05
14	255.75	3.51E-01 +/- 1.93E-01	1.43E+00	4.15E-04 +/- 3.06E-05
15	298.05	2.51E-01 +/- 1.48E-01	1.40E+00	3.74E-04 +/- 1.90E-05
16	311.90	2.53E-01 +/- 1.46E-01	1.39E+00	3.62E-04 +/- 1.74E-05
M 17	333.43	1.82E+00 +/- 2.10E-01	1.38E+00	3.43E-04 +/- 1.67E-05
m 18	336.54	5.53E-01 +/- 1.02E-01	1.38E+00	3.41E-04 +/- 1.67E-05
M 19	342.33	2.20E-01 +/- 6.98E-02	1.38E+00	3.36E-04 +/- 1.68E-05
m 20	345.74	1.59E+00 +/- 2.00E-01	1.38E+00	3.33E-04 +/- 1.69E-05
21	368.83	4.85E-01 +/- 1.34E-01	1.37E+00	3.16E-04 +/- 1.77E-05
22	375.72	3.43E+00 +/- 2.89E-01	1.37E+00	3.11E-04 +/- 1.79E-05
M 23	380.95	9.03E-01 +/- 1.27E-01	1.36E+00	3.07E-04 +/- 1.81E-05
m 24	383.43	8.49E-01 +/- 1.19E-01	1.36E+00	3.06E-04 +/- 1.82E-05
25	393.69	1.60E+00 +/- 1.46E-01	1.36E+00	2.99E-04 +/- 1.85E-05
26	413.70	3.76E+00 +/- 1.96E-01	1.35E+00	2.86E-04 +/- 1.90E-05
27	423.29	4.83E-01 +/- 8.11E-02	1.35E+00	2.81E-04 +/- 1.91E-05
28	452.22	5.73E-01 +/- 8.91E-02	1.34E+00	2.65E-04 +/- 1.91E-05
29	662.42	1.35E-01 +/- 4.37E-02	1.27E+00	1.90E-04 +/- 1.21E-05
30	2236.00	1.00E+02 +/- 1.50E+00	1.14E+00	5.76E-05 +/- 3.29E-05

Segment: 6

Detector: DET01 (# 1)

Position: 6

Elapsed Live Time: 112.81 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.324 +/- 0.0088
SE-75	264.65	0.000 +/- 0.0000	0.422 +/- 0.0062
SE-75	279.53	0.000 +/- 0.0000	0.425 +/- 0.0071
SE-75	400.65	0.000 +/- 0.0000	0.486 +/- 0.0093

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.28	1.58E+00 +/- 2.47E-01	2.05E+00	5.10E-07 +/- 3.17E-06
2	49.96	5.05E+00 +/- 7.17E-01	1.71E+00	2.15E-05 +/- 5.57E-05
3	60.15	1.43E+02 +/- 2.18E+00	1.64E+00	6.07E-05 +/- 9.93E-05
4	95.25	1.27E+00 +/- 7.53E-01	1.54E+00	2.82E-04 +/- 8.73E-05
5	99.26	6.45E+00 +/- 1.00E+00	1.53E+00	3.05E-04 +/- 7.53E-05
6	104.28	8.21E+00 +/- 7.50E-01	1.52E+00	3.33E-04 +/- 6.02E-05
7	111.68	5.99E+00 +/- 5.88E-01	1.51E+00	3.68E-04 +/- 4.00E-05
M 8	125.93	1.88E+00 +/- 2.19E-01	1.50E+00	4.21E-04 +/- 2.47E-05
m 9	129.98	2.45E+01 +/- 8.15E-01	1.49E+00	4.33E-04 +/- 2.80E-05
10	171.87	8.39E-01 +/- 4.14E-01	1.45E+00	4.85E-04 +/- 5.88E-05
11	189.95	3.77E-01 +/- 1.95E-01	1.43E+00	4.82E-04 +/- 5.72E-05
12	208.68	3.96E+00 +/- 4.61E-01	1.41E+00	4.72E-04 +/- 5.09E-05
13	279.54	3.90E-01 +/- 1.91E-01	1.36E+00	4.11E-04 +/- 2.35E-05
14	298.31	5.02E-01 +/- 2.15E-01	1.35E+00	3.94E-04 +/- 1.96E-05
15	311.90	3.79E-01 +/- 1.76E-01	1.34E+00	3.82E-04 +/- 1.81E-05
M 16	333.49	2.98E+00 +/- 2.81E-01	1.33E+00	3.65E-04 +/- 1.73E-05
m 17	336.57	7.28E-01 +/- 1.20E-01	1.33E+00	3.62E-04 +/- 1.73E-05
18	345.78	2.45E+00 +/- 2.06E-01	1.32E+00	3.55E-04 +/- 1.74E-05
19	368.91	3.39E-01 +/- 2.08E-01	1.31E+00	3.38E-04 +/- 1.82E-05
20	375.72	4.83E+00 +/- 3.58E-01	1.31E+00	3.34E-04 +/- 1.84E-05
M 21	380.99	1.38E+00 +/- 1.64E-01	1.31E+00	3.30E-04 +/- 1.86E-05
m 22	383.44	1.24E+00 +/- 1.50E-01	1.31E+00	3.28E-04 +/- 1.87E-05
23	393.65	2.84E+00 +/- 1.76E-01	1.30E+00	3.22E-04 +/- 1.90E-05
24	413.70	6.74E+00 +/- 2.65E-01	1.29E+00	3.09E-04 +/- 1.95E-05
25	423.31	5.61E-01 +/- 9.32E-02	1.29E+00	3.04E-04 +/- 1.96E-05
26	452.29	7.14E-01 +/- 1.14E-01	1.28E+00	2.88E-04 +/- 1.97E-05
27	662.42	2.27E-01 +/- 5.52E-02	1.23E+00	2.10E-04 +/- 1.26E-05
28	2236.00	1.00E+02 +/- 1.50E+00	1.12E+00	4.34E-05 +/- 2.42E-05

Segment: 7

Detector: DET01 (# 1)

Position: 7

Elapsed Live Time: 112.34 sec

Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.255 +/- 0.0090
SE-75	264.65	0.000 +/- 0.0000	0.342 +/- 0.0074
SE-75	279.53	0.000 +/- 0.0000	0.344 +/- 0.0080
SE-75	400.65	0.000 +/- 0.0000	0.406 +/- 0.0103

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.17	1.74E+00 +/-	2.84E-01	2.33E+00 5.31E-09 +/- 3.02E-08
2	50.05	7.20E+00 +/-	9.03E-01	1.89E+00 2.88E-06 +/- 6.77E-06
3	60.16	2.06E+02 +/-	2.93E+00	1.80E+00 1.60E-05 +/- 2.39E-05
4	99.26	8.84E+00 +/-	1.12E+00	1.66E+00 2.42E-04 +/- 5.53E-05
5	104.13	1.27E+01 +/-	7.99E-01	1.65E+00 2.80E-04 +/- 4.77E-05
6	111.68	2.29E+00 +/-	7.46E-01	1.64E+00 3.35E-04 +/- 3.49E-05
7	115.84	3.97E+00 +/-	7.75E-01	1.63E+00 3.63E-04 +/- 2.88E-05
M 8	125.96	3.20E+00 +/-	2.68E-01	1.62E+00 4.24E-04 +/- 2.46E-05
m 9	129.98	2.97E+01 +/-	9.09E-01	1.61E+00 4.45E-04 +/- 2.77E-05
10	144.76	1.29E+00 +/-	4.10E-01	1.59E+00 5.04E-04 +/- 4.47E-05
11	148.57	1.19E+00 +/-	3.97E-01	1.59E+00 5.16E-04 +/- 4.85E-05
12	172.11	8.12E-01 +/-	4.32E-01	1.56E+00 5.55E-04 +/- 6.09E-05
13	196.05	7.01E-01 +/-	3.49E-01	1.53E+00 5.56E-04 +/- 5.80E-05
14	204.24	1.67E+00 +/-	3.61E-01	1.52E+00 5.51E-04 +/- 5.50E-05
15	208.68	3.51E+00 +/-	5.21E-01	1.52E+00 5.47E-04 +/- 5.32E-05
16	256.33	7.17E-01 +/-	1.88E-01	1.47E+00 4.90E-04 +/- 3.17E-05
M 17	264.48	2.71E-01 +/-	1.12E-01	1.46E+00 4.79E-04 +/- 2.87E-05
m 18	268.26	5.10E-01 +/-	1.62E-01	1.46E+00 4.73E-04 +/- 2.74E-05
19	298.11	4.72E-01 +/-	2.48E-01	1.45E+00 4.34E-04 +/- 2.02E-05
M 20	321.66	3.48E-01 +/-	1.24E-01	1.43E+00 4.05E-04 +/- 1.79E-05
m 21	324.71	3.47E-01 +/-	1.22E-01	1.43E+00 4.01E-04 +/- 1.78E-05
M 22	333.49	3.72E+00 +/-	3.00E-01	1.42E+00 3.91E-04 +/- 1.76E-05
m 23	336.65	1.18E+00 +/-	1.38E-01	1.42E+00 3.88E-04 +/- 1.76E-05
24	345.67	2.90E+00 +/-	2.52E-01	1.41E+00 3.78E-04 +/- 1.76E-05
25	368.83	1.17E+00 +/-	1.93E-01	1.40E+00 3.55E-04 +/- 1.81E-05
26	375.73	6.26E+00 +/-	3.87E-01	1.40E+00 3.48E-04 +/- 1.82E-05
M 27	380.86	1.38E+00 +/-	1.64E-01	1.39E+00 3.44E-04 +/- 1.83E-05
m 28	383.54	1.45E+00 +/-	1.67E-01	1.39E+00 3.41E-04 +/- 1.84E-05
29	393.63	2.57E+00 +/-	2.01E-01	1.39E+00 3.33E-04 +/- 1.86E-05
30	413.70	7.88E+00 +/-	2.95E-01	1.38E+00 3.17E-04 +/- 1.88E-05
31	423.17	5.12E-01 +/-	9.19E-02	1.37E+00 3.10E-04 +/- 1.88E-05
32	443.98	1.24E-01 +/-	6.87E-02	1.36E+00 2.95E-04 +/- 1.87E-05

33	452.27	9.37E-01	+/-	1.29E-01	1.36E+00	2.90E-04	+/-	1.86E-05
34	511.52	1.40E-01	+/-	5.82E-02	1.34E+00	2.57E-04	+/-	1.71E-05
35	646.94	8.71E-02	+/-	3.56E-02	1.30E+00	2.07E-04	+/-	1.22E-05
36	662.42	1.66E-01	+/-	5.26E-02	1.29E+00	2.03E-04	+/-	1.17E-05
37	1001.03	8.80E-03	+/-	8.80E-03	1.23E+00	1.45E-04	+/-	6.33E-06
38	2236.00	1.00E+02	+/-	1.51E+00	1.15E+00	5.07E-05	+/-	2.69E-05

Segment: 8

Detector: DET01

(# 1)

Position: 8

Elapsed Live Time: 111.86 sec

Elapsed Real Time: 115.00 sec

		TRANSMISSION RESULTS	
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.262 +/- 0.0085
SE-75	264.65	0.000 +/- 0.0000	0.361 +/- 0.0078
SE-75	279.53	0.000 +/- 0.0000	0.358 +/- 0.0083
SE-75	400.65	0.000 +/- 0.0000	0.424 +/- 0.0108

		PEAK ANALYSIS RESULTS					
Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency			
1	32.11	2.52E+00	+/- 3.09E-01	2.30E+00	7.73E-06	+/-	7.50E-06
2	49.89	1.36E+01	+/- 1.17E+00	1.87E+00	5.88E-05	+/-	2.91E-05
3	60.16	2.36E+02	+/- 3.32E+00	1.78E+00	1.10E-04	+/-	3.84E-05
4	99.28	2.21E+01	+/- 1.09E+00	1.65E+00	3.24E-04	+/-	3.31E-05
5	111.72	7.33E+00	+/- 7.48E-01	1.63E+00	3.75E-04	+/-	2.72E-05
M 6	125.88	3.98E+00	+/- 3.08E-01	1.61E+00	4.19E-04	+/-	2.31E-05
m 7	129.98	3.66E+01	+/- 1.03E+00	1.60E+00	4.29E-04	+/-	2.26E-05
8	144.73	8.76E-01	+/- 4.13E-01	1.58E+00	4.57E-04	+/-	2.25E-05
9	148.57	1.18E+00	+/- 4.99E-01	1.57E+00	4.62E-04	+/-	2.28E-05
10	171.76	1.00E+00	+/- 4.14E-01	1.54E+00	4.80E-04	+/-	2.51E-05
11	190.15	7.65E-01	+/- 3.64E-01	1.52E+00	4.81E-04	+/-	2.61E-05
12	196.43	1.01E+00	+/- 4.39E-01	1.51E+00	4.79E-04	+/-	2.62E-05
13	208.68	9.46E+00	+/- 4.67E-01	1.50E+00	4.74E-04	+/-	2.60E-05
14	256.15	7.98E-01	+/- 2.86E-01	1.44E+00	4.39E-04	+/-	2.28E-05
15	298.10	3.76E-01	+/- 2.15E-01	1.43E+00	4.01E-04	+/-	1.90E-05
M 16	321.50	5.47E-01	+/- 1.50E-01	1.41E+00	3.80E-04	+/-	1.71E-05
m 17	324.48	6.59E-01	+/- 1.68E-01	1.41E+00	3.77E-04	+/-	1.69E-05
M 18	333.44	4.81E+00	+/- 3.62E-01	1.40E+00	3.69E-04	+/-	1.62E-05
m 19	336.41	1.10E+00	+/- 1.45E-01	1.40E+00	3.67E-04	+/-	1.60E-05
20	345.66	3.76E+00	+/- 2.64E-01	1.39E+00	3.59E-04	+/-	1.54E-05
21	375.76	8.22E+00	+/- 4.67E-01	1.38E+00	3.34E-04	+/-	1.38E-05
M 22	380.94	2.00E+00	+/- 1.99E-01	1.37E+00	3.30E-04	+/-	1.36E-05
m 23	383.50	2.02E+00	+/- 1.95E-01	1.37E+00	3.28E-04	+/-	1.35E-05
24	393.64	3.99E+00	+/- 2.42E-01	1.37E+00	3.21E-04	+/-	1.31E-05

25	400.66	3.22E-01	+/-	1.05E-01	1.36E+00	3.16E-04	+/-	1.29E-05
26	413.70	9.86E+00	+/-	3.37E-01	1.36E+00	3.06E-04	+/-	1.25E-05
27	423.35	6.35E-01	+/-	1.16E-01	1.35E+00	3.00E-04	+/-	1.22E-05
28	452.21	1.15E+00	+/-	1.21E-01	1.34E+00	2.82E-04	+/-	1.16E-05
29	662.42	3.04E-01	+/-	7.35E-02	1.28E+00	1.93E-04	+/-	9.41E-06
30	722.01	5.25E-02	+/-	3.93E-02	1.26E+00	1.78E-04	+/-	8.71E-06
31	770.37	1.15E-01	+/-	4.28E-02	1.25E+00	1.67E-04	+/-	8.11E-06
32	1085.91	1.92E-02	+/-	1.86E-02	1.21E+00	1.28E-04	+/-	4.75E-06
33	2236.00	1.00E+02	+/-	1.51E+00	1.15E+00	1.19E-04	+/-	2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 110.97 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.232 +/- 0.0090
SE-75	264.65	0.000 +/- 0.0000	0.349 +/- 0.0076
SE-75	279.53	0.000 +/- 0.0000	0.351 +/- 0.0082
SE-75	400.65	0.000 +/- 0.0000	0.412 +/- 0.0105

PEAK ANALYSIS RESULTS			
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor
1	31.89	1.22E+00	+/- 2.64E-01
2	49.92	7.77E+00	+/- 9.90E-01
3	60.16	2.38E+02	+/- 3.35E+00
4	99.25	1.62E+01	+/- 1.50E+00
5	104.27	1.91E+01	+/- 1.14E+00
6	111.69	8.05E+00	+/- 9.99E-01
7	115.95	6.46E+00	+/- 1.06E+00
M 8	125.90	4.65E+00	+/- 3.42E-01
m 9	129.99	5.25E+01	+/- 1.28E+00
10	148.57	2.44E+00	+/- 5.29E-01
11	161.43	1.26E+00	+/- 4.65E-01
12	172.10	1.25E+00	+/- 4.95E-01
13	196.38	2.14E+00	+/- 5.34E-01
14	208.67	1.04E+01	+/- 7.29E-01
15	238.78	6.37E-01	+/- 4.11E-01
16	255.98	8.50E-01	+/- 2.79E-01
M 17	264.57	4.64E-01	+/- 1.73E-01
m 18	268.05	9.88E-01	+/- 2.47E-01
19	311.90	8.45E-01	+/- 2.79E-01
M 20	321.41	9.37E-01	+/- 2.17E-01
m 21	324.70	1.13E+00	+/- 2.28E-01

Original Efficiency
3.46E-08
7.46E-06
2.58E-05
5.59E-05
4.77E-05
3.46E-05
2.82E-05
2.41E-05
2.73E-05
4.79E-05
5.67E-05
5.97E-05
5.63E-05
5.15E-05
3.76E-05
3.03E-05
2.72E-05
2.61E-05
1.78E-05
1.73E-05
1.72E-05

M 22	333.46	8.11E+00	+/-	4.60E-01	1.41E+00	3.59E-04	+/-	1.71E-05
m 23	336.55	2.20E+00	+/-	1.99E-01	1.41E+00	3.56E-04	+/-	1.71E-05
24	345.67	6.79E+00	+/-	3.41E-01	1.41E+00	3.46E-04	+/-	1.72E-05
25	368.51	1.79E+00	+/-	3.44E-01	1.39E+00	3.25E-04	+/-	1.76E-05
26	375.74	1.38E+01	+/-	6.47E-01	1.39E+00	3.18E-04	+/-	1.78E-05
M 27	380.85	3.87E+00	+/-	2.89E-01	1.39E+00	3.14E-04	+/-	1.79E-05
m 28	383.48	3.19E+00	+/-	2.49E-01	1.38E+00	3.12E-04	+/-	1.80E-05
29	393.56	6.99E+00	+/-	3.14E-01	1.38E+00	3.03E-04	+/-	1.81E-05
30	413.70	1.96E+01	+/-	5.02E-01	1.37E+00	2.88E-04	+/-	1.83E-05
31	423.30	1.03E+00	+/-	1.53E-01	1.36E+00	2.82E-04	+/-	1.83E-05
32	452.21	2.17E+00	+/-	1.53E-01	1.35E+00	2.63E-04	+/-	1.81E-05
33	646.70	1.34E-01	+/-	4.93E-02	1.29E+00	1.88E-04	+/-	1.17E-05
34	662.42	1.83E-01	+/-	6.28E-02	1.29E+00	1.84E-04	+/-	1.12E-05
35	722.01	1.42E-01	+/-	5.66E-02	1.27E+00	1.72E-04	+/-	9.44E-06
36	964.13	4.47E-02	+/-	2.50E-02	1.23E+00	1.38E-04	+/-	6.28E-06
37	1001.03	3.80E-02	+/-	2.94E-02	1.22E+00	1.35E-04	+/-	6.06E-06
38	1408.01	1.79E-02	+/-	1.26E-02	1.18E+00	1.05E-04	+/-	6.90E-06
39	2236.00	1.00E+02	+/-	1.52E+00	1.15E+00	6.12E-05	+/-	3.31E-05

Segment: 10

Detector: DET01

(# 1)

Position: 10

Elapsed Live Time: 109.54 sec Elapsed Real Time: 115.00 sec

TRANSMISSION		RESULTS	
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TRANSMISSION		RESULTS	
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.238 +/- 0.0085
SE-75	264.65	0.000 +/- 0.0000	0.343 +/- 0.0075
SE-75	279.53	0.000 +/- 0.0000	0.351 +/- 0.0083
SE-75	400.65	0.000 +/- 0.0000	0.404 +/- 0.0105

PEAK ANALYSIS		RESULTS	
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.86	4.30E+00	+/- 4.15E-01	2.43E+00 1.62E-05 +/- 1.62E-05
2	50.26	1.52E+01	+/- 1.36E+00	1.94E+00 8.52E-05 +/- 4.24E-05
3	60.15	2.84E+02	+/- 3.92E+00	1.85E+00 1.37E-04 +/- 4.88E-05
4	99.23	2.69E+01	+/- 1.86E+00	1.70E+00 3.29E-04 +/- 3.41E-05
5	104.32	3.12E+01	+/- 1.41E+00	1.69E+00 3.48E-04 +/- 3.11E-05
6	111.69	2.06E+01	+/- 1.11E+00	1.68E+00 3.72E-04 +/- 2.73E-05
M 7	125.93	5.26E+00	+/- 3.79E-01	1.66E+00 4.08E-04 +/- 2.27E-05
m 8	129.97	8.28E+01	+/- 1.71E+00	1.65E+00 4.16E-04 +/- 2.21E-05
9	144.76	1.32E+00	+/- 7.78E-01	1.63E+00 4.39E-04 +/- 2.19E-05
10	148.57	3.24E+00	+/- 6.34E-01	1.62E+00 4.43E-04 +/- 2.22E-05
11	161.54	1.54E+00	+/- 7.28E-01	1.60E+00 4.54E-04 +/- 2.33E-05
12	172.11	2.17E+00	+/- 6.90E-01	1.58E+00 4.59E-04 +/- 2.42E-05

13	179.72	1.75E+00	+/-	6.97E-01	1.57E+00	4.60E-04	+/-	2.47E-05
14	189.90	1.48E+00	+/-	3.70E-01	1.55E+00	4.60E-04	+/-	2.51E-05
15	196.36	1.40E+00	+/-	5.45E-01	1.55E+00	4.59E-04	+/-	2.52E-05
16	204.18	2.69E+00	+/-	8.07E-01	1.53E+00	4.57E-04	+/-	2.52E-05
17	208.68	1.54E+01	+/-	9.18E-01	1.53E+00	4.56E-04	+/-	2.51E-05
18	244.70	1.06E+00	+/-	5.27E-01	1.48E+00	4.37E-04	+/-	2.32E-05
19	256.06	2.21E+00	+/-	3.99E-01	1.47E+00	4.29E-04	+/-	2.23E-05
20	279.54	1.15E+00	+/-	4.11E-01	1.45E+00	4.12E-04	+/-	2.03E-05
21	298.14	1.46E+00	+/-	4.64E-01	1.44E+00	3.97E-04	+/-	1.87E-05
22	311.90	1.63E+00	+/-	3.27E-01	1.43E+00	3.87E-04	+/-	1.76E-05
M 23	321.59	7.99E-01	+/-	1.96E-01	1.42E+00	3.80E-04	+/-	1.69E-05
m 24	324.18	1.29E+00	+/-	2.50E-01	1.42E+00	3.78E-04	+/-	1.68E-05
M 25	333.46	1.27E+01	+/-	5.80E-01	1.42E+00	3.71E-04	+/-	1.62E-05
m 26	336.67	3.46E+00	+/-	2.49E-01	1.42E+00	3.68E-04	+/-	1.60E-05
27	345.69	7.58E+00	+/-	7.63E-01	1.41E+00	3.62E-04	+/-	1.54E-05
28	368.54	4.08E+00	+/-	4.05E-01	1.40E+00	3.45E-04	+/-	1.43E-05
29	375.73	2.31E+01	+/-	8.43E-01	1.40E+00	3.40E-04	+/-	1.40E-05
M 30	380.92	6.24E+00	+/-	3.67E-01	1.39E+00	3.37E-04	+/-	1.38E-05
m 31	383.44	5.47E+00	+/-	3.31E-01	1.39E+00	3.35E-04	+/-	1.37E-05
32	393.57	1.13E+01	+/-	4.06E-01	1.39E+00	3.28E-04	+/-	1.34E-05
33	413.70	3.12E+01	+/-	6.73E-01	1.38E+00	3.15E-04	+/-	1.29E-05
34	423.33	1.94E+00	+/-	2.21E-01	1.37E+00	3.09E-04	+/-	1.27E-05
35	446.39	1.68E-01	+/-	1.09E-01	1.36E+00	2.96E-04	+/-	1.23E-05
36	452.16	3.74E+00	+/-	2.24E-01	1.36E+00	2.92E-04	+/-	1.22E-05
37	646.60	1.92E-01	+/-	6.16E-02	1.30E+00	2.10E-04	+/-	1.05E-05
M 38	659.75	1.49E-01	+/-	4.49E-02	1.29E+00	2.06E-04	+/-	1.03E-05
m 39	663.11	6.90E-01	+/-	1.19E-01	1.29E+00	2.05E-04	+/-	1.03E-05
40	704.16	7.40E-02	+/-	4.08E-02	1.28E+00	1.94E-04	+/-	9.79E-06
41	722.01	1.18E-01	+/-	6.40E-02	1.28E+00	1.89E-04	+/-	9.55E-06
42	770.00	2.05E-01	+/-	5.20E-02	1.27E+00	1.78E-04	+/-	8.88E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)	
43	778.90	7.70E-02 +/- 4.54E-02	1.27E+00	1.76E-04 +/- 8.75E-06	
44	2236.00	1.00E+02 +/- 1.53E+00	1.15E+00	9.04E-05 +/- 2.29E-05	

Segment: 11

Detector: DET01 (# 1)

Position: 11

Elapsed Live Time: 109.83 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS	
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.339 +/- 0.0116
SE-75	264.65	0.000 +/- 0.0000	0.469 +/- 0.0102
SE-75	279.53	0.000 +/- 0.0000	0.478 +/- 0.0110
SE-75	400.65	0.000 +/- 0.0000	0.541 +/- 0.0135

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.13	4.21E+00 +/- 4.31E-01	2.01E+00	1.32E-03 +/- 8.50E-03
2	49.94	1.78E+01 +/- 1.43E+00	1.68E+00	6.01E-04 +/- 1.60E-03
3	60.15	3.10E+02 +/- 4.23E+00	1.61E+00	5.03E-04 +/- 8.47E-04
4	99.24	2.30E+01 +/- 1.80E+00	1.51E+00	4.09E-04 +/- 1.04E-04
5	104.36	3.06E+01 +/- 1.37E+00	1.50E+00	4.06E-04 +/- 7.51E-05
6	111.68	1.57E+01 +/- 1.06E+00	1.49E+00	4.03E-04 +/- 4.47E-05
M 7	125.89	5.58E+00 +/- 3.75E-01	1.48E+00	4.00E-04 +/- 2.37E-05
m 8	129.97	7.48E+01 +/- 1.60E+00	1.47E+00	3.99E-04 +/- 2.64E-05
9	148.57	2.26E+00 +/- 6.09E-01	1.45E+00	3.97E-04 +/- 4.23E-05
10	161.54	1.87E+00 +/- 5.20E-01	1.43E+00	3.96E-04 +/- 4.80E-05
11	172.13	2.59E+00 +/- 5.39E-01	1.41E+00	3.95E-04 +/- 4.96E-05
12	190.04	1.45E+00 +/- 5.81E-01	1.39E+00	3.92E-04 +/- 4.81E-05
13	196.40	2.19E+00 +/- 4.71E-01	1.38E+00	3.91E-04 +/- 4.67E-05
14	204.21	1.85E+00 +/- 7.73E-01	1.38E+00	3.89E-04 +/- 4.47E-05
15	208.68	1.42E+01 +/- 8.72E-01	1.37E+00	3.88E-04 +/- 4.34E-05
16	256.06	2.02E+00 +/- 3.73E-01	1.32E+00	3.74E-04 +/- 2.77E-05
M 17	264.83	6.84E-01 +/- 1.97E-01	1.31E+00	3.71E-04 +/- 2.52E-05
m 18	268.19	9.52E-01 +/- 2.41E-01	1.31E+00	3.70E-04 +/- 2.43E-05
M 19	298.16	1.31E+00 +/- 2.57E-01	1.30E+00	3.58E-04 +/- 1.82E-05
m 20	301.43	6.44E-01 +/- 1.74E-01	1.30E+00	3.57E-04 +/- 1.78E-05
21	311.90	2.10E+00 +/- 3.98E-01	1.29E+00	3.53E-04 +/- 1.69E-05
M 22	321.56	1.29E+00 +/- 2.19E-01	1.29E+00	3.49E-04 +/- 1.64E-05
m 23	324.50	1.24E+00 +/- 2.11E-01	1.28E+00	3.47E-04 +/- 1.63E-05

M 24	333.49	1.15E+01	+/-	5.37E-01	1.28E+00	3.43E-04	+/-	1.63E-05
m 25	336.66	3.05E+00	+/-	2.27E-01	1.28E+00	3.42E-04	+/-	1.63E-05
26	345.70	7.31E+00	+/-	3.81E-01	1.27E+00	3.38E-04	+/-	1.66E-05
27	368.82	2.86E+00	+/-	3.81E-01	1.26E+00	3.28E-04	+/-	1.75E-05
28	375.74	1.93E+01	+/-	7.60E-01	1.26E+00	3.25E-04	+/-	1.79E-05
M 29	380.91	5.00E+00	+/-	3.32E-01	1.26E+00	3.23E-04	+/-	1.81E-05
m 30	383.47	4.20E+00	+/-	2.87E-01	1.26E+00	3.21E-04	+/-	1.83E-05
31	393.59	1.04E+01	+/-	3.93E-01	1.25E+00	3.17E-04	+/-	1.87E-05
32	413.70	2.77E+01	+/-	6.18E-01	1.25E+00	3.08E-04	+/-	1.94E-05
33	423.29	1.80E+00	+/-	1.74E-01	1.24E+00	3.04E-04	+/-	1.97E-05
34	452.18	2.79E+00	+/-	2.12E-01	1.24E+00	2.92E-04	+/-	2.00E-05
M 35	659.57	1.01E-01	+/-	4.39E-02	1.19E+00	2.15E-04	+/-	1.31E-05
m 36	663.19	3.92E-01	+/-	9.67E-02	1.19E+00	2.14E-04	+/-	1.30E-05
37	722.01	2.28E-01	+/-	7.18E-02	1.18E+00	1.97E-04	+/-	1.08E-05
38	778.90	6.32E-02	+/-	2.39E-02	1.18E+00	1.83E-04	+/-	9.12E-06
39	867.39	3.03E-02	+/-	2.30E-02	1.17E+00	1.63E-04	+/-	7.48E-06
40	1085.91	1.81E-02	+/-	1.28E-02	1.14E+00	1.27E-04	+/-	5.57E-06
41	1408.01	9.03E-03	+/-	9.03E-03	1.13E+00	9.35E-05	+/-	6.52E-06
42	2236.00	1.00E+02	+/-	1.52E+00	1.10E+00	5.79E-05	+/-	3.30E-05

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Corrected Peak Count Rate (Cps)
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Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 111.23 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.313 +/- 0.0107
SE-75	264.65	0.000 +/- 0.0000	0.425 +/- 0.0092
SE-75	279.53	0.000 +/- 0.0000	0.437 +/- 0.0101
SE-75	400.65	0.000 +/- 0.0000	0.484 +/- 0.0122

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.82	1.44E+00 +/-	2.36E-01	2.11E+00 2.07E-09 +/- 1.29E-08
2	50.03	1.75E+01 +/-	1.42E+00	1.74E+00 2.08E-06 +/- 5.27E-06
3	60.15	3.19E+02 +/-	4.34E+00	1.66E+00 1.30E-05 +/- 2.08E-05
4	99.28	2.85E+01 +/-	1.25E+00	1.55E+00 2.32E-04 +/- 5.62E-05
5	111.72	6.48E+00 +/-	9.11E-01	1.53E+00 3.26E-04 +/- 3.51E-05
6	115.88	3.98E+00 +/-	9.59E-01	1.53E+00 3.55E-04 +/- 2.86E-05
M 7	125.94	4.69E+00 +/-	3.31E-01	1.52E+00 4.16E-04 +/- 2.45E-05
m 8	129.97	4.01E+01 +/-	1.10E+00	1.51E+00 4.37E-04 +/- 2.82E-05
9	144.86	1.03E+00 +/-	4.03E-01	1.49E+00 4.98E-04 +/- 4.72E-05
10	148.57	1.61E+00 +/-	4.97E-01	1.49E+00 5.08E-04 +/- 5.12E-05
M 11	161.67	1.85E+00 +/-	3.74E-01	1.47E+00 5.35E-04 +/- 6.10E-05
m 12	165.18	1.13E+00 +/-	2.90E-01	1.46E+00 5.39E-04 +/- 6.25E-05
M 13	176.43	5.48E-01 +/-	2.27E-01	1.45E+00 5.47E-04 +/- 6.45E-05
m 14	179.83	8.49E-01 +/-	2.87E-01	1.45E+00 5.47E-04 +/- 6.44E-05
15	189.92	1.32E+00 +/-	4.61E-01	1.43E+00 5.45E-04 +/- 6.26E-05
16	196.27	1.15E+00 +/-	4.31E-01	1.43E+00 5.42E-04 +/- 6.05E-05
17	208.68	8.40E+00 +/-	6.57E-01	1.41E+00 5.31E-04 +/- 5.52E-05
18	256.15	6.70E-01 +/-	2.61E-01	1.37E+00 4.66E-04 +/- 3.20E-05
19	311.90	3.02E+00 +/-	2.91E-01	1.33E+00 3.88E-04 +/- 1.81E-05
M 20	321.80	6.01E-01 +/-	1.79E-01	1.33E+00 3.76E-04 +/- 1.74E-05
m 21	324.33	7.19E-01 +/-	1.90E-01	1.33E+00 3.73E-04 +/- 1.73E-05
M 22	333.52	6.43E+00 +/-	3.96E-01	1.32E+00 3.62E-04 +/- 1.72E-05
m 23	336.64	2.05E+00 +/-	1.88E-01	1.32E+00 3.59E-04 +/- 1.72E-05
24	345.68	4.67E+00 +/-	2.77E-01	1.32E+00 3.49E-04 +/- 1.72E-05
25	375.74	9.57E+00 +/-	5.25E-01	1.31E+00 3.19E-04 +/- 1.78E-05

M 26	380.88	2.50E+00	+/-	2.36E-01	1.31E+00	3.14E-04	+/-	1.80E-05
m 27	383.48	2.20E+00	+/-	2.05E-01	1.31E+00	3.12E-04	+/-	1.80E-05
28	393.64	5.00E+00	+/-	2.74E-01	1.30E+00	3.03E-04	+/-	1.82E-05
29	413.70	1.28E+01	+/-	4.03E-01	1.30E+00	2.87E-04	+/-	1.84E-05
30	423.19	8.28E-01	+/-	1.37E-01	1.29E+00	2.81E-04	+/-	1.84E-05
31	452.19	1.55E+00	+/-	1.44E-01	1.28E+00	2.62E-04	+/-	1.82E-05
32	646.22	5.89E-02	+/-	4.24E-02	1.23E+00	1.86E-04	+/-	1.18E-05
33	662.42	4.68E-01	+/-	9.37E-02	1.23E+00	1.82E-04	+/-	1.13E-05
34	722.01	2.86E-01	+/-	6.48E-02	1.22E+00	1.70E-04	+/-	9.57E-06
35	1001.03	3.35E-02	+/-	2.25E-02	1.18E+00	1.35E-04	+/-	6.07E-06
36	1112.12	2.77E-02	+/-	2.06E-02	1.17E+00	1.27E-04	+/-	5.46E-06
37	2236.00	1.00E+02	+/-	1.53E+00	1.12E+00	6.48E-05	+/-	3.54E-05

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 111.81 sec

Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.249 +/- 0.0078
SE-75	264.65	0.000 +/- 0.0000	0.386 +/- 0.0057
SE-75	279.53	0.000 +/- 0.0000	0.394 +/- 0.0067
SE-75	400.65	0.000 +/- 0.0000	0.448 +/- 0.0088

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency				
1	32.01	2.14E+00	+/-	3.11E-01	2.37E+00	1.70E-08	+/-	1.11E-07
2	50.13	1.61E+01	+/-	1.40E+00	1.91E+00	5.08E-06	+/-	1.35E-05
3	60.16	3.20E+02	+/-	4.33E+00	1.82E+00	2.29E-05	+/-	3.87E-05
4	99.29	1.95E+01	+/-	1.02E+00	1.67E+00	2.49E-04	+/-	6.32E-05
5	111.64	4.89E+00	+/-	6.79E-01	1.65E+00	3.29E-04	+/-	3.67E-05
M 6	125.89	5.50E+00	+/-	3.31E-01	1.63E+00	4.02E-04	+/-	2.40E-05
m 7	129.98	2.75E+01	+/-	8.75E-01	1.63E+00	4.19E-04	+/-	2.77E-05
8	148.57	1.20E+00	+/-	3.93E-01	1.59E+00	4.73E-04	+/-	5.02E-05
9	208.68	7.40E+00	+/-	5.20E-01	1.48E+00	4.88E-04	+/-	5.34E-05
10	256.05	8.41E-01	+/-	3.18E-01	1.42E+00	4.37E-04	+/-	3.13E-05
11	300.10	9.24E-01	+/-	2.94E-01	1.38E+00	3.86E-04	+/-	1.92E-05
12	311.90	4.45E+00	+/-	2.90E-01	1.38E+00	3.74E-04	+/-	1.79E-05
M 13	333.38	3.52E+00	+/-	2.95E-01	1.37E+00	3.53E-04	+/-	1.73E-05
m 14	336.34	1.65E+00	+/-	1.75E-01	1.37E+00	3.50E-04	+/-	1.73E-05
15	345.66	2.57E+00	+/-	2.71E-01	1.36E+00	3.41E-04	+/-	1.75E-05
16	369.01	1.19E+00	+/-	2.01E-01	1.35E+00	3.22E-04	+/-	1.83E-05
17	375.80	6.16E+00	+/-	4.00E-01	1.35E+00	3.16E-04	+/-	1.85E-05
M 18	380.95	1.35E+00	+/-	1.71E-01	1.34E+00	3.12E-04	+/-	1.87E-05

m 19	383.51	1.27E+00	+/-	1.59E-01	1.34E+00	3.10E-04	+/-	1.88E-05
20	393.61	2.22E+00	+/-	2.23E-01	1.34E+00	3.03E-04	+/-	1.90E-05
21	400.66	3.06E-01	+/-	1.39E-01	1.34E+00	2.98E-04	+/-	1.92E-05
22	413.70	7.52E+00	+/-	2.97E-01	1.33E+00	2.89E-04	+/-	1.94E-05
23	423.50	3.75E-01	+/-	1.26E-01	1.33E+00	2.83E-04	+/-	1.95E-05
24	452.12	6.97E-01	+/-	9.89E-02	1.32E+00	2.67E-04	+/-	1.94E-05
25	511.25	1.99E-01	+/-	7.79E-02	1.30E+00	2.39E-04	+/-	1.80E-05
26	619.60	1.29E-01	+/-	5.00E-02	1.27E+00	2.03E-04	+/-	1.38E-05
27	662.42	6.89E-01	+/-	9.93E-02	1.26E+00	1.92E-04	+/-	1.21E-05
28	722.01	3.41E-01	+/-	7.15E-02	1.24E+00	1.80E-04	+/-	1.01E-05
29	964.13	3.39E-02	+/-	2.31E-02	1.21E+00	1.45E-04	+/-	6.45E-06
30	2225.54	8.92E-02	+/-	2.82E-02	1.14E+00	5.41E-05	+/-	3.01E-05
31	2236.00	1.00E+02	+/-	1.52E+00	1.14E+00	5.36E-05	+/-	3.03E-05

Segment: 14

Detector: DET01 (# 1)

Position: 14

Elapsed Live Time: 112.25 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS	
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.154 +/- 0.0064
SE-75	264.65	0.000 +/- 0.0000	0.289 +/- 0.0063
SE-75	279.53	0.000 +/- 0.0000	0.297 +/- 0.0070
SE-75	400.65	0.000 +/- 0.0000	0.356 +/- 0.0093

PEAK ANALYSIS RESULTS	
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.28	1.72E+00	+/- 2.83E-01	2.95E+00 3.68E-06 +/- 2.19E-05
2	50.27	1.44E+01	+/- 1.30E+00	2.29E+00 4.73E-05 +/- 1.16E-04
3	60.16	2.85E+02	+/- 3.89E+00	2.16E+00 9.58E-05 +/- 1.50E-04
4	99.37	1.66E+01	+/- 9.34E-01	1.95E+00 3.19E-04 +/- 7.53E-05
5	111.70	4.15E+00	+/- 6.22E-01	1.92E+00 3.69E-04 +/- 3.93E-05
M 6	125.89	3.83E+00	+/- 2.87E-01	1.89E+00 4.12E-04 +/- 2.40E-05
m 7	129.96	2.20E+01	+/- 7.78E-01	1.89E+00 4.21E-04 +/- 2.68E-05
8	144.89	4.98E-01	+/- 2.96E-01	1.84E+00 4.47E-04 +/- 4.17E-05
9	148.57	8.26E-01	+/- 4.59E-01	1.83E+00 4.51E-04 +/- 4.47E-05
10	204.19	2.84E+00	+/- 2.77E-01	1.67E+00 4.57E-04 +/- 4.85E-05
11	208.69	5.04E+00	+/- 5.45E-01	1.66E+00 4.54E-04 +/- 4.70E-05
12	256.07	5.41E-01	+/- 2.31E-01	1.56E+00 4.19E-04 +/- 2.89E-05
13	300.10	5.03E-01	+/- 2.18E-01	1.51E+00 3.81E-04 +/- 1.84E-05
14	311.90	4.63E+00	+/- 2.88E-01	1.51E+00 3.71E-04 +/- 1.72E-05
M 15	333.37	2.59E+00	+/- 2.58E-01	1.49E+00 3.54E-04 +/- 1.64E-05
m 16	336.44	1.27E+00	+/- 1.58E-01	1.49E+00 3.51E-04 +/- 1.64E-05
17	345.67	1.88E+00	+/- 2.42E-01	1.48E+00 3.44E-04 +/- 1.65E-05

18	369.10	4.43E-01	+/-	2.37E-01	1.46E+00	3.27E-04	+/-	1.70E-05
19	375.76	4.97E+00	+/-	3.60E-01	1.46E+00	3.22E-04	+/-	1.72E-05
M 20	380.97	1.04E+00	+/-	1.48E-01	1.46E+00	3.19E-04	+/-	1.74E-05
m 21	383.51	1.12E+00	+/-	1.48E-01	1.45E+00	3.17E-04	+/-	1.74E-05
22	393.75	2.03E+00	+/-	1.99E-01	1.45E+00	3.10E-04	+/-	1.77E-05
23	413.70	5.92E+00	+/-	2.66E-01	1.44E+00	2.98E-04	+/-	1.80E-05
24	423.21	4.15E-01	+/-	9.12E-02	1.43E+00	2.92E-04	+/-	1.81E-05
25	452.05	7.80E-01	+/-	1.06E-01	1.42E+00	2.76E-04	+/-	1.81E-05
26	662.42	4.21E-01	+/-	7.35E-02	1.34E+00	1.96E-04	+/-	1.14E-05
27	722.01	1.99E-01	+/-	5.58E-02	1.32E+00	1.81E-04	+/-	9.66E-06
28	964.13	1.77E-02	+/-	1.25E-02	1.27E+00	1.41E-04	+/-	6.33E-06
29	2236.00	1.00E+02	+/-	1.51E+00	1.18E+00	7.64E-05	+/-	4.15E-05

Segment: 15

Detector: DET01

(# 1)

Position: 15

Elapsed Live Time: 113.18 sec

Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.218 +/- 0.0077
SE-75	264.65	0.000 +/- 0.0000	0.388 +/- 0.0057
SE-75	279.53	0.000 +/- 0.0000	0.402 +/- 0.0067
SE-75	400.65	0.000 +/- 0.0000	0.465 +/- 0.0090

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.12	1.26E+00	+/- 2.16E-01	2.53E+00 1.25E-09 +/- 7.84E-09
2	50.17	5.08E+00	+/- 7.72E-01	2.01E+00 1.85E-06 +/- 4.78E-06
3	60.16	1.45E+02	+/- 2.20E+00	1.91E+00 1.23E-05 +/- 2.02E-05
4	99.36	8.76E+00	+/- 6.68E-01	1.75E+00 2.33E-04 +/- 5.75E-05
5	111.65	1.42E+00	+/- 4.24E-01	1.73E+00 3.22E-04 +/- 3.52E-05
M 6	125.94	2.56E+00	+/- 2.32E-01	1.70E+00 4.05E-04 +/- 2.37E-05
m 7	129.99	1.26E+01	+/- 5.81E-01	1.70E+00 4.24E-04 +/- 2.75E-05
8	148.57	6.59E-01	+/- 2.84E-01	1.65E+00 4.82E-04 +/- 5.01E-05
9	185.71	8.42E-01	+/- 3.35E-01	1.55E+00 5.02E-04 +/- 6.08E-05
10	208.67	4.12E+00	+/- 3.84E-01	1.50E+00 4.81E-04 +/- 5.23E-05
11	300.10	5.38E-01	+/- 1.66E-01	1.37E+00 3.60E-04 +/- 1.79E-05
12	311.90	2.50E+00	+/- 2.20E-01	1.37E+00 3.47E-04 +/- 1.64E-05
M 13	333.38	1.61E+00	+/- 2.02E-01	1.35E+00 3.24E-04 +/- 1.53E-05
m 14	336.24	6.33E-01	+/- 1.15E-01	1.35E+00 3.22E-04 +/- 1.53E-05
15	345.72	1.13E+00	+/- 1.99E-01	1.35E+00 3.13E-04 +/- 1.53E-05
16	369.21	2.51E-01	+/- 1.80E-01	1.33E+00 2.93E-04 +/- 1.57E-05
17	375.70	2.84E+00	+/- 2.79E-01	1.33E+00 2.88E-04 +/- 1.59E-05
M 18	380.89	6.50E-01	+/- 1.20E-01	1.33E+00 2.84E-04 +/- 1.60E-05

m 19	383.59	4.89E-01	+/-	9.71E-02	1.33E+00	2.82E-04	+/-	1.60E-05
20	393.68	1.37E+00	+/-	1.42E-01	1.32E+00	2.75E-04	+/-	1.62E-05
21	413.70	3.85E+00	+/-	2.01E-01	1.31E+00	2.62E-04	+/-	1.65E-05
22	423.16	1.09E-01	+/-	6.05E-02	1.31E+00	2.56E-04	+/-	1.65E-05
23	452.17	3.54E-01	+/-	9.73E-02	1.30E+00	2.40E-04	+/-	1.65E-05
24	662.42	2.50E-01	+/-	6.45E-02	1.24E+00	1.75E-04	+/-	1.08E-05
25	722.01	1.73E-01	+/-	4.36E-02	1.23E+00	1.64E-04	+/-	9.17E-06
26	1085.91	4.37E-02	+/-	1.95E-02	1.18E+00	1.21E-04	+/-	5.37E-06
27	1112.12	8.73E-03	+/-	8.73E-03	1.18E+00	1.18E-04	+/-	5.22E-06
28	1408.01	1.75E-02	+/-	1.23E-02	1.16E+00	9.07E-05	+/-	6.42E-06
29	2236.00	1.00E+02	+/-	1.50E+00	1.13E+00	3.18E-05	+/-	1.80E-05

Segment: 16

Detector: DET01

(# 1)

Position: 16

Elapsed Live Time: 113.89 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.614 +/- 0.0140
SE-75	264.65	0.000 +/- 0.0000	0.686 +/- 0.0098
SE-75	279.53	0.000 +/- 0.0000	0.700 +/- 0.0109
SE-75	400.65	0.000 +/- 0.0000	0.718 +/- 0.0129

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.89	2.81E-01	+/-	1.51E-01
2	49.78	2.87E+00	+/-	5.09E-01
3	60.16	4.14E+01	+/-	9.31E-01
4	99.39	2.59E+00	+/-	4.12E-01
5	111.80	8.50E-01	+/-	2.79E-01
M 6	126.03	4.15E-01	+/-	1.27E-01
m 7	130.02	3.55E+00	+/-	3.46E-01
8	185.71	2.98E-01	+/-	1.89E-01
9	204.29	5.43E-01	+/-	1.48E-01
10	208.66	1.16E+00	+/-	2.37E-01
11	311.90	9.14E-01	+/-	1.38E-01
12	333.46	1.10E+00	+/-	1.60E-01
13	345.65	3.36E-01	+/-	1.12E-01
14	375.75	9.21E-01	+/-	1.55E-01
15	383.53	6.64E-01	+/-	9.66E-02
16	393.68	4.37E-01	+/-	8.22E-02
17	413.70	1.23E+00	+/-	1.22E-01
18	443.98	5.80E-02	+/-	3.34E-02
19	452.43	1.04E-01	+/-	4.70E-02

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Instrument ID: SGS Can ID: LL85001758 Count Sequence #: 2502

20	722.01	8.66E-03	+/-	8.66E-03	1.10E+00	1.06E-04	+/-	6.56E-06
21	911.15	5.19E-02	+/-	2.47E-02	1.08E+00	8.59E-05	+/-	4.81E-06
22	1408.01	8.66E-03	+/-	8.66E-03	1.07E+00	6.48E-05	+/-	4.76E-06
23	2236.00	1.00E+02	+/-	1.50E+00	1.05E+00	6.28E-05	+/-	1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: LL85001758
Peak Locate Performed on: 12-19-07 12:28:15 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.60	0.1511	31.97	19.91
2	100.62	0.1339	49.97	19.26
3	120.98	0.0324	60.16	413.80
4	199.20	0.0555	99.27	138.23
5	209.09	0.0708	104.21	75.75
6	224.05	0.0783	111.69	69.10
7	260.65	0.0503	129.97	163.33
8	290.23	0.1526	144.78	21.15
9	299.21	0.1189	149.27	33.47
10	323.75	0.1521	161.54	13.14
11	344.89	0.1808	172.11	13.35
12	360.38	0.2191	179.86	9.41
13	380.59	0.1847	189.96	11.62
14	393.33	0.1679	196.33	15.15
15	409.07	0.0838	204.20	60.79
16	418.02	0.0649	208.68	99.20
17	476.99	0.2779	238.16	5.82
18	512.88	0.1608	256.11	16.82
19	537.21	0.2140	268.27	9.68
20	596.88	0.2069	298.15	10.58
21	602.67	0.2874	300.88	6.02
22	625.82	0.1069	312.57	34.67
23	643.44	0.2302	321.61	7.42
24	649.77	0.2057	324.37	10.15
25	667.54	0.0822	333.46	55.12
26	674.18	0.1458	336.55	23.24
27	692.03	0.0819	345.68	61.07
28	738.34	0.1338	368.84	16.93
29	752.15	0.0616	375.74	102.13
30	762.13	0.1111	380.92	36.13
31	767.93	0.1219	383.48	31.16
32	787.88	0.0841	393.61	54.62
33	829.52	0.0614	414.43	91.77
34	847.26	0.1204	423.30	25.71
35	893.78	0.2484	446.55	6.54
36	905.07	0.1085	452.20	33.22

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	1023.48	0.2380	511.41	5.55
38	1293.79	0.2301	646.56	7.17
39	1326.86	0.1533	663.09	15.66
40	1446.42	0.1877	722.88	9.25
41	4473.36	0.0268	2236.34	407.51

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: LL85001758
 Peak Analysis Performed on: 12-19-07 12:28:15 PM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area Uncert.	Continuum Counts
1	60-	70	64.60	31.97	2.80E+03	114.54		3.87E+03
2	94-	104	100.62	49.97	1.15E+04	376.48		5.14E+04
3	114-	127	120.98	60.16	3.01E+05	681.48		5.92E+04
4	194-	205	199.20	99.27	1.34E+04	490.72		9.04E+04
5	205-	215	209.09	104.21	2.09E+04	349.64		3.85E+04
6	217-	227	224.05	111.69	1.06E+04	291.01		3.06E+04
F	7	257-	269	260.61	129.97	4.78E+04	367.77	9.05E+03
	8	283-	293	290.23	144.78	1.36E+03	180.86	1.30E+04
	9	297-	304	299.21	149.27	2.01E+03	149.21	9.88E+03
	10	316-	328	323.75	161.54	6.49E+02	200.03	1.49E+04
	11	338-	351	344.89	172.11	1.39E+03	193.29	1.30E+04
	12	356-	367	360.38	179.86	6.61E+02	164.29	1.05E+04
	13	377-	387	380.59	189.96	6.42E+02	151.34	9.31E+03
	14	387-	400	393.33	196.33	1.45E+03	176.15	1.07E+04
	15	401-	413	409.07	204.20	5.22E+02	213.22	1.64E+04
	16	413-	425	418.02	208.68	9.34E+03	231.77	1.55E+04
	17	474-	482	476.99	238.16	1.75E+02	94.11	4.05E+03
	18	509-	520	512.88	256.11	1.08E+03	109.56	4.32E+03
	19	533-	544	537.21	268.27	1.84E+02	104.22	4.22E+03
M	20	593-	610	596.96	298.15	5.89E+02	65.78	2.18E+03
m	21	593-	610	602.43	300.88	3.70E+02	50.60	2.40E+03
	22	622-	631	625.82	312.57	2.46E+03	92.12	2.62E+03
M	23	639-	657	643.89	321.61	7.22E+02	62.46	2.35E+03
m	24	639-	657	649.41	324.37	8.46E+02	67.25	2.67E+03
M	25	659-	679	667.59	333.46	6.78E+03	134.91	2.08E+03
m	26	659-	679	673.77	336.55	1.97E+03	63.28	2.20E+03
	27	691-	699	692.03	345.68	5.83E+03	100.26	1.72E+03
	28	730-	745	738.34	368.84	1.94E+03	102.72	2.87E+03
	29	745-	759	752.15	375.74	1.16E+04	189.10	7.84E+03
M	30	759-	775	762.50	380.92	2.99E+03	82.11	1.38E+03
m	31	759-	775	767.62	383.48	2.71E+03	75.14	1.07E+03
	32	780-	795	787.88	393.61	5.76E+03	97.29	1.24E+03
	33	821-	837	829.52	414.43	1.56E+04	134.69	8.03E+02
	34	843-	851	847.26	423.30	1.02E+03	45.50	4.84E+02
	35	890-	898	893.78	446.55	6.04E+01	23.98	2.39E+02
	36	898-	912	905.07	452.20	1.74E+03	55.23	4.56E+02
	37	1018-	1031	1023.48	511.41	2.91E+02	30.53	2.33E+02

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	1290-	1298	1293.79	646.56	6.20E+01	16.88	1.04E+02	
39	1323-	1335	1326.86	663.09	4.11E+02	29.36	1.66E+02	
40	1441-	1454	1446.42	722.88	1.84E+02	23.14	1.27E+02	
41	4463-	4483	4473.36	2236.34	1.82E+05	427.46	2.38E+02	

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: LL85001758
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	0.992	2236.00*	100.00	7.642E+02	1.855E+02
Np-237	0.967	300.10*	6.63	5.295E+00	7.249E-01
		311.90*	38.60	6.190E+00	2.372E-01
Pu-239	0.963	413.70*	0.00	1.245E+06	2.572E+04
Pu-239A	0.968	129.29*	0.01	7.639E+05	1.979E+04
Am-241	0.968	662.42*	0.00	1.772E+05	1.277E+04
Am-241D	0.948	722.01*	0.00	1.736E+05	2.185E+04
Pu-241	0.965	148.57*	0.00	9.617E+05	7.406E+04

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-19-07 12:28:15 PM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	31.97	2.4712E+01	4.10
2	49.97	1.0198E+02	3.27
3	60.16	2.6538E+03	0.34
4	99.27	1.1811E+02	3.68
5	104.21	1.8475E+02	1.69
6	111.69	9.3262E+01	2.77
8	144.78	1.1978E+01	13.34
10	161.54	5.7271E+00	30.84
11	172.11	1.2315E+01	13.86
12	179.86	5.8385E+00	24.85
13	189.96	5.6733E+00	23.56
14	196.33	1.2764E+01	12.19
15	204.20	4.6109E+00	40.83
16	208.68	8.2474E+01	2.49
17	238.16	1.5452E+00	53.79
18	256.11	9.5317E+00	10.15
19	268.27	1.6259E+00	56.61
M 20	298.15	5.1996E+00	11.17
M 23	321.61	6.3779E+00	8.65
m 24	324.37	7.4743E+00	7.95
M 25	333.46	5.9831E+01	2.01
m 26	336.55	1.7373E+01	3.23
27	345.68	5.1458E+01	1.74
28	368.84	1.7152E+01	5.29
29	375.74	1.0219E+02	1.65
M 30	380.92	2.6411E+01	2.76
m 31	383.48	2.3966E+01	2.78
32	393.61	5.0834E+01	1.71
34	423.30	9.0484E+00	4.45
35	446.55	5.3307E-01	39.73
36	452.20	1.5380E+01	3.18
37	511.41	2.5720E+00	10.48
38	646.56	5.4734E-01	27.23

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	8.33E+02	+/-	1.23E+02	2.41E-02
SE-75	<	1.91E-01	+/-	1.30E-02
EU-152x	<	2.73E-01	+/-	2.05E-02
U-233	<	1.28E+04	+/-	1.02E+03
U-235	1.86E-01	+/-	6.51E-02	5.38E-06
Np-237	5.71E+00	+/-	2.45E-01	1.65E-04
Pu-238	<	1.95E+04	+/-	2.19E+03
U-238	3.95E+00	+/-	1.34E+00	1.14E-04
Pu-239	1.13E+06	+/-	2.58E+04	3.27E+01
Pu-239A	6.97E+05	+/-	1.61E+04	2.01E+01
Am-241	1.72E+05	+/-	1.19E+04	4.97E+00
Am-241D	1.50E+05	+/-	1.64E+04	4.32E+00
Pu-241	7.26E+05	+/-	7.75E+04	2.10E+01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

U-235	8.61E-02	+/-	3.01E-02
Np-237	8.11E-03	+/-	3.48E-04
U-238	1.18E+01	+/-	3.98E+00
Pu-239	1.82E+01	+/-	4.16E-01
Pu-239A	1.12E+01	+/-	2.59E-01
Am-241	5.02E-02	+/-	3.49E-03
Pu-241	7.02E-03	+/-	7.50E-04

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	7.64E+02	+/-	1.86E+02	2.21E-02
SE-75	< 6.70E-01	+/-	6.49E-03	< 1.94E-05
EU-152x	< 5.79E-01	+/-	1.10E-02	< 1.67E-05
U-233	< 4.95E+04	+/-	1.12E+03	< 1.43E+00
U-235	< 9.67E-01	+/-	2.28E-02	< 2.79E-05
Np-237	6.10E+00	+/-	2.25E-01	1.76E-04
Pu-238	< 7.31E+04	+/-	1.47E+03	< 2.11E+00
U-238	< 1.44E+01	+/-	2.31E-01	< 4.16E-04
Pu-239	1.24E+06	+/-	2.57E+04	3.60E+01
Pu-239A	7.64E+05	+/-	1.98E+04	2.21E+01
Am-241	1.77E+05	+/-	1.28E+04	5.12E+00
Am-241D	1.74E+05	+/-	2.19E+04	5.02E+00
Pu-241	9.62E+05	+/-	7.41E+04	2.78E+01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)
Np-237	8.67E-03
Pu-239	2.00E+01
Pu-239A	1.23E+01
Am-241	5.17E-02
Pu-241	9.30E-03

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.974 +/- 20.2909
Matrix Longitudinal Ratio: 0.879 +/- 0.0674

Source Vertical Ratio: 0.749 +/- 0.3794
Matrix Vertical Ratio: 0.663 +/- 0.0144

NUJDS could not find the transmission peak in one radial segment.

Drum ID	: S100-2501	Gross Weight (kg)	: 54.0
Sequence Number	: 2501	Fill Height (%)	: 100.0
Assay Date	: 12/13/07 07:48:34	Density (g/cc)	: 0.11
Batch Number	:	Net Weight (kg)	: 22.20
Site ID	:	Waste Matrix Code	:
		TRUCON	:

Errors at 1.00 Sigma			
TRU Alpha Activity Concentration:	4.30e-04	+/-	5.25e-05 Ci/g
Total Pu-239 Equiv Activity:	9.94e+00	+/-	1.17e+00 Ci
Total Pu-239 Fissile Gram Equiv:	1.06e+02	+/-	1.80e+01 g
Decay Heat:	3.05e-01	+/-	3.68e-02 W
Total Pu Mass:	1.12e+02	+/-	1.80e+01 g
TMU:	17.08%		
Waste Classification:	TRU		

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
------------------	---------------------	-------------------------------

Pu-238	8.57e-03	5.98e+00
Pu-239	9.42e+01	4.41e-02
Pu-240	5.60e+00	7.34e-01
Pu-241	1.82e-01	5.84e-01
Pu-242	3.09e-02	1.00e+01
Am-241	4.96e-01	4.07e-01
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	0.00e+00	0.00e+00

Activity Errors

Isotope	1.00 Sigma Mass (g)	Alpha Activity/ Error/Isotope Mass (g)	1.00 Sigma Isotope (Ci)	Alpha Activity/ Error/Isotope	1.00 Sigma MDA (Ci)
Pu-238	9.56e-03	1.73e-03	1.64e-01	2.96e-02	3.04e-03
Pu-239	1.05e+02	1.79e+01	6.52e+00	1.11e+00	2.97e-01
Pu-240	6.25e+00	1.07e+00	1.42e+00	2.43e-01	0.00e+00
Pu-241	2.03e-01	3.47e-02	2.10e+01	3.58e+00	6.42e-03
Pu-242	3.44e-02	6.82e-03	1.35e-04	2.68e-05	0.00e+00
Am-241	4.22e-01	7.07e-02	1.44e+00	2.42e-01	9.07e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	1.34e-02	2.33e-03	9.46e-06	1.64e-06	1.32e-03
*U-235	<LLD	0.00e+00	0.00e+00	0.00e+00	3.31e-01
*U-238	<LLD	0.00e+00	0.00e+00	0.00e+00	1.80e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	3.20e+00
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Date

Reviewer Signature

Date

Software Version: GWAS v2.3bGEN
Counter Number: SGS
Data Review for Container: S100-2501
Item Description Code: \Count Type: DEBRIS
Sequence Number: 2501
Assayed on: 12/13/07 07:48:34
Report Generated: 12/13/07 08:47:40
AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

REVIEW Pu-240 Wt Pct +2 Sigma error <5.68> less than <5.87> Review MGA Results
Pu-240 Wt Pct error <0.73> is within limits
Pu-238 Wt Pct error <5.98> is within limits
QFIT <1.14> is within limits

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.107> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <1.56e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <1.55> is acceptable in Segment 1
Pulser value <0.99> is within range in Segment 1
DEAD TIME percentage <1.89> is acceptable in Segment 2
Pulser value <1.00> is within range in Segment 2
DEAD TIME percentage <4.30> is acceptable in Segment 3
Pulser value <0.99> is within range in Segment 3
DEAD TIME percentage <14.64> is acceptable in Segment 4
Pulser value <1.00> is within range in Segment 4
DEAD TIME percentage <26.88> is acceptable in Segment 5
Pulser value <1.00> is within range in Segment 5
DEAD TIME percentage <26.65> is acceptable in Segment 6
Pulser value <0.99> is within range in Segment 6
DEAD TIME percentage <16.66> is acceptable in Segment 7
Pulser value <1.01> is within range in Segment 7
DEAD TIME percentage <5.99> is acceptable in Segment 8
Pulser value <1.01> is within range in Segment 8
DEAD TIME percentage <2.07> is acceptable in Segment 9
Pulser value <0.99> is within range in Segment 9
DEAD TIME percentage <1.52> is acceptable in Segment 10
Pulser value <0.99> is within range in Segment 10
DEAD TIME percentage <1.27> is acceptable in Segment 11
Pulser value <0.99> is within range in Segment 11
DEAD TIME percentage <1.06> is acceptable in Segment 12
Pulser value <0.99> is within range in Segment 12
DEAD TIME percentage <0.88> is acceptable in Segment 13
Pulser value <0.99> is within range in Segment 13
DEAD TIME percentage <0.75> is acceptable in Segment 14
Pulser value <1.00> is within range in Segment 14
DEAD TIME percentage <0.70> is acceptable in Segment 15
Pulser value <0.98> is within range in Segment 15
DEAD TIME percentage <0.69> is acceptable in Segment 16
Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
Transmission results are acceptable in Segment 2
Transmission results are acceptable in Segment 3
Transmission results are acceptable in Segment 4
Transmission results are acceptable in Segment 5
Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8

Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

REVIEW Reduced chi squared fit value <8.53e+00> exceeds limit <3.00> for energy peak <129.94> in Segment 4
REVIEW Reduced chi squared fit value <2.24e+01> exceeds limit <3.00> for energy peak <129.91> in Segment 5
REVIEW Reduced chi squared fit value <8.74e+00> exceeds limit <3.00> for energy peak <129.94> in Segment 7
REVIEW Reduced chi squared fit value <3.44e+00> exceeds limit <3.00> for energy peak <663.14> in the .A04

Section 7 - FGE MASS REVIEW

REVIEW FGE Mass <123.63> > <110.00>

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

Am-241 ratio <249.11> is above lower limit <200.00>
Np-237 ratio <7827.63> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <105.07> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Am-241D > Am-241A: Calculation not performed

Independent Reviewer: _____ Date: _____

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS

Data Review for Container: S100-2501

Item Description Code:

Sequence Number: 2501

Assayed on: 12/13/07 07:48:34

AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA	
Pu-240 Wt Pct +2 Sigma error is less than lower limit.	
SECTION 6 - REDUCED CHI SQUARED FIT	
Chi square failure for 129.9 Kev in Segment 4	
Chi square failure for 129.9 Kev in Segment 5	
Chi square failure for 129.9 Kev in Segment 7	
Chi square failure for 663.1 KeV in .A04 Spectrum.	
SECTION 7 - FGE MASS	
FGE Mass is greater than upper limit.	
SECTION 9 - IDC COUNT TYPE	
IDC is not available.	

Technical Reviewer: _____ Date: _____

***** M G A R E P O R T *****

Report generated on: 12-13-07 8:45:55 AM

MGA version: MGA V9.5 CI

Spectrum ID: 11202501.CNF Sens : 30.0% LT: 47.2 Mins DT: 16.63
Measurement date: 12-13-07 Declared date: 12-13-07

Sample ID: S100-2501 Detector: Total counts: 1.319E+07

Pu g/cm² = 0.7974 Cd g/cm² = 1.8002 FWHM at 122 keV = 621 eV
QFIT = 1.14 FWHM at 208 keV = 794 eV
NQFIT = 1.01

Isotope	Relative to Pu-239	%*		Relative to Pu-241	%*		Meas. date	Isotope analysis at		
		Err	%		Err	%		Decl. date	% weight	% Err
Pu-238	0.000091	6.0	6.0	0.0472	5.9	0.00857	5.98	0.00857	5.98	
Pu-239	1.000000	0.0	0.3	518.2443	0.6	94.17736	0.04	94.17736	0.04	
Pu-240	0.059478	0.8	0.7	30.8241	0.9	5.60147	0.73	5.60147	0.73	
Pu-241	0.001930	0.6	0.5	1.0000	0.0	0.18172	0.58	0.18172	0.58	
Pu-242	(New alg.)			0.1699 (10)		0.03088 (10)		0.03088 (10)		
Am-241	0.005265	0.4	0.3	2.7283	0.6	0.49580	0.41	0.49580	0.41	

Pu-240 effective (meas. date) = 5.675 +/- 0.80%
Am-241 separated about 27.262 +/- 0.137 years ago
Am/Pu-241 weight ratio = 2.72830 +/- 0.59%

Messages :

Lead x-rays detected.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Report for: S100-2501 12-13-07 8:46:09 AM Page 1

Gamma Waste Assay

Sample Information

File Name:	C:\WAS\DATA\2600\11102501.S11		
Sample ID:	S100-2501	Count Sequence Number:	2501
Assay Start:	12-13-07 7:48:35 AM		
Description 1:			
Description 2:			
Location:			
Comment:			
Waste Type:			
Weight:	Gross: 54000.0 g	Net: 22200.0 g	
Density:	0.107 g /ml		
Container Type:	55 Gal Galv		
Container:	Volume: 208000. ml	Full:	100.0 %

System Configuration

Counter ID Number:	SGS	
Arrangement Description:	SGS	
Segments:	Number: 16	Offset: 0
Scanning Platform:	Start: 934 mm	Delta: -51 mm
Count Type:	Daily 100g Drum Check	
Collimator/Geometry Setting:	0	
Transmission Mode:	Two pass	
Transmission Source:	0	

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps

Geometric Correction Factor(SWCONTGCF): 0.760

Date of efficiency calibration approval: 8-27-2003 2:05:34 PM

Mu Factors response file: Lucite

Transmission Calib. Time: 12-11-2007 9:07:38 AM 22209

Reviewed by: _____ Date: _____

Segment Results

Segment: 1

Detector: DET01 (# 1)

Position: 1

Elapsed Live Time: 113.22 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.335 +/- 0.0092
SE-75	264.65	0.000 +/- 0.0000	0.439 +/- 0.0031
SE-75	279.53	0.000 +/- 0.0000	0.454 +/- 0.0048
SE-75	400.65	0.000 +/- 0.0000	0.500 +/- 0.0073

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.14	1.29E+00 +/- 2.66E-01	2.02E+00	4.98E-10 +/- 3.52E-09
2	49.26	3.32E+00 +/- 5.33E-01	1.69E+00	6.92E-07 +/- 2.09E-06
3	59.94	8.62E+00 +/- 5.98E-01	1.62E+00	6.11E-06 +/- 1.14E-05
4	121.11	8.00E-01 +/- 4.92E-01	1.49E+00	2.66E-04 +/- 1.81E-05
5	722.01	3.92E-02 +/- 3.40E-02	1.21E+00	1.18E-04 +/- 7.51E-06
6	1408.01	3.49E-02 +/- 1.74E-02	1.14E+00	6.92E-05 +/- 5.19E-06
7	2236.00	1.00E+02 +/- 1.50E+00	1.12E+00	3.40E-05 +/- 2.15E-05

Segment: 2

Detector: DET01 (# 1)

Position: 2

Elapsed Live Time: 112.83 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.395 +/- 0.0095
SE-75	264.65	0.000 +/- 0.0000	0.520 +/- 0.0034
SE-75	279.53	0.000 +/- 0.0000	0.532 +/- 0.0054
SE-75	400.65	0.000 +/- 0.0000	0.565 +/- 0.0079

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.97	2.09E+00 +/-	2.67E-01	1.85E+00 1.86E-05 +/- 1.16E-04
2	49.18	3.15E+00 +/-	6.07E-01	1.58E+00 7.96E-05 +/- 2.11E-04
3	60.04	1.66E+01 +/-	7.18E-01	1.51E+00 1.32E-04 +/- 2.14E-04
4	68.03	1.55E+00 +/-	4.83E-01	1.49E+00 1.72E-04 +/- 1.96E-04
5	95.60	1.70E+00 +/-	9.55E-01	1.43E+00 2.96E-04 +/- 8.89E-05
6	99.14	1.61E+00 +/-	7.90E-01	1.43E+00 3.09E-04 +/- 7.59E-05
7	111.87	2.20E+00 +/-	8.80E-01	1.41E+00 3.48E-04 +/- 3.74E-05
8	279.54	5.09E-01 +/-	2.89E-01	1.26E+00 3.82E-04 +/- 2.14E-05
9	662.42	6.32E-02 +/-	2.64E-02	1.18E+00 1.86E-04 +/- 1.15E-05
10	1001.03	3.11E-02 +/-	1.95E-02	1.14E+00 1.28E-04 +/- 5.83E-06
11	1112.12	8.87E-03 +/-	8.87E-03	1.13E+00 1.18E-04 +/- 5.17E-06
12	1408.01	8.87E-03 +/-	3.69E-02	1.12E+00 1.02E-04 +/- 6.88E-06
13	2236.00	1.00E+02 +/-	1.51E+00	1.10E+00 9.73E-05 +/- 5.41E-05

Segment: 3

Detector: DET01

(# 1)

Position: 3

Elapsed Live Time: 110.05 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.340 +/- 0.0103
SE-75	264.65	0.000 +/- 0.0000	0.464 +/- 0.0033
SE-75	279.53	0.000 +/- 0.0000	0.477 +/- 0.0051
SE-75	400.65	0.000 +/- 0.0000	0.527 +/- 0.0078

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.85	3.09E+00 +/-	3.47E-01	2.01E+00 3.31E-06 +/- 3.19E-06
2	60.13	7.42E+01 +/-	1.49E+00	1.61E+00 8.06E-05 +/- 2.78E-05
3	99.36	3.16E+01 +/-	1.47E+00	1.51E+00 2.97E-04 +/- 3.03E-05
4	116.01	9.23E+00 +/-	1.18E+00	1.48E+00 3.72E-04 +/- 2.47E-05
M 5	125.93	4.29E+00 +/-	4.05E-01	1.47E+00 4.08E-04 +/- 2.27E-05
m 6	129.97	2.65E+01 +/-	9.82E-01	1.47E+00 4.20E-04 +/- 2.22E-05
7	148.57	3.88E+00 +/-	7.50E-01	1.45E+00 4.63E-04 +/- 2.25E-05
8	172.06	1.43E+00 +/-	8.35E-01	1.42E+00 4.90E-04 +/- 2.48E-05

9	180.05	3.59E+00	+/-	8.46E-01	1.41E+00	4.94E-04	+/-	2.54E-05
10	190.14	7.90E-01	+/-	4.28E-01	1.39E+00	4.95E-04	+/-	2.59E-05
11	196.24	1.27E+00	+/-	6.35E-01	1.39E+00	4.95E-04	+/-	2.60E-05
12	204.16	4.04E+00	+/-	6.97E-01	1.38E+00	4.93E-04	+/-	2.59E-05
13	208.67	1.49E+01	+/-	9.11E-01	1.37E+00	4.92E-04	+/-	2.59E-05
14	244.70	1.35E+00	+/-	6.12E-01	1.34E+00	4.68E-04	+/-	2.38E-05
15	255.86	8.58E-01	+/-	4.41E-01	1.33E+00	4.58E-04	+/-	2.28E-05
16	267.86	9.94E-01	+/-	6.40E-01	1.32E+00	4.47E-04	+/-	2.17E-05
M 17	333.39	6.97E+00	+/-	4.93E-01	1.29E+00	3.84E-04	+/-	1.63E-05
m 18	336.45	1.87E+00	+/-	2.34E-01	1.29E+00	3.81E-04	+/-	1.61E-05
19	345.68	6.54E+00	+/-	4.38E-01	1.28E+00	3.73E-04	+/-	1.56E-05
20	368.94	1.20E+00	+/-	4.65E-01	1.27E+00	3.52E-04	+/-	1.44E-05
21	375.75	1.30E+01	+/-	6.16E-01	1.27E+00	3.46E-04	+/-	1.41E-05
M 22	380.96	2.82E+00	+/-	2.69E-01	1.27E+00	3.42E-04	+/-	1.38E-05
m 23	383.51	2.95E+00	+/-	2.68E-01	1.27E+00	3.40E-04	+/-	1.37E-05
24	393.62	6.00E+00	+/-	3.48E-01	1.27E+00	3.31E-04	+/-	1.34E-05
25	413.70	1.66E+01	+/-	4.62E-01	1.26E+00	3.16E-04	+/-	1.28E-05
M 26	423.46	1.09E+00	+/-	1.76E-01	1.26E+00	3.09E-04	+/-	1.26E-05
m 27	427.30	2.10E-01	+/-	6.89E-02	1.26E+00	3.06E-04	+/-	1.25E-05
28	452.18	1.83E+00	+/-	1.86E-01	1.25E+00	2.89E-04	+/-	1.20E-05
29	619.47	2.65E-01	+/-	7.05E-02	1.21E+00	2.09E-04	+/-	1.01E-05
M 30	659.44	1.09E-01	+/-	4.35E-02	1.20E+00	1.96E-04	+/-	9.66E-06
m 31	663.08	6.99E-01	+/-	1.27E-01	1.20E+00	1.95E-04	+/-	9.62E-06
32	722.01	5.26E-01	+/-	7.74E-02	1.19E+00	1.79E-04	+/-	8.87E-06
33	2236.00	1.00E+02	+/-	1.52E+00	1.11E+00	1.32E-04	+/-	3.24E-05

Segment: 4

Detector: DET01 (# 1)

Position: 4

Elapsed Live Time: 98.16 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.348 +/- 0.0126
SE-75	264.65	0.000 +/- 0.0000	0.489 +/- 0.0037
SE-75	279.53	0.000 +/- 0.0000	0.487 +/- 0.0059
SE-75	400.65	0.000 +/- 0.0000	0.540 +/- 0.0087

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.00	1.01E+01	+/- 6.72E-01	1.16E-07 +/- 7.09E-07
2	50.18	7.03E+00	+/- 1.46E+00	1.08E-05 +/- 2.69E-05
3	60.13	4.43E+02	+/- 6.10E+00	3.61E-05 +/- 5.75E-05
4	99.32	1.75E+02	+/- 3.73E+00	2.64E-04 +/- 6.35E-05
5	111.67	3.74E+01	+/- 2.16E+00	3.35E-04 +/- 3.63E-05

6	116.24	2.06E+01	+/-	2.88E+00	1.47E+00	3.58E-04	+/-	2.83E-05
M 7	125.93	2.26E+01	+/-	8.33E-01	1.46E+00	3.99E-04	+/-	2.37E-05
m 8	129.94	1.63E+02	+/-	2.95E+00	1.46E+00	4.14E-04	+/-	2.68E-05
9	144.73	2.12E+00	+/-	1.25E+00	1.44E+00	4.55E-04	+/-	4.31E-05
10	148.57	1.73E+01	+/-	1.26E+00	1.43E+00	4.63E-04	+/-	4.66E-05
11	172.14	8.52E+00	+/-	1.49E+00	1.40E+00	4.88E-04	+/-	5.77E-05
12	179.69	3.18E+00	+/-	1.12E+00	1.39E+00	4.90E-04	+/-	5.79E-05
13	189.87	4.36E+00	+/-	9.66E-01	1.38E+00	4.89E-04	+/-	5.65E-05
14	196.37	8.80E+00	+/-	1.33E+00	1.37E+00	4.87E-04	+/-	5.48E-05
15	208.66	1.02E+02	+/-	2.22E+00	1.35E+00	4.80E-04	+/-	5.05E-05
16	244.70	1.97E+00	+/-	8.00E-01	1.32E+00	4.48E-04	+/-	3.50E-05
17	256.00	5.94E+00	+/-	8.86E-01	1.30E+00	4.36E-04	+/-	3.06E-05
M 18	264.44	1.64E+00	+/-	3.56E-01	1.30E+00	4.27E-04	+/-	2.76E-05
m 19	268.19	4.81E+00	+/-	6.20E-01	1.30E+00	4.23E-04	+/-	2.63E-05
20	298.10	4.18E+00	+/-	8.93E-01	1.29E+00	3.91E-04	+/-	1.92E-05
21	311.90	4.25E+00	+/-	6.91E-01	1.28E+00	3.77E-04	+/-	1.75E-05
M 22	321.67	5.12E+00	+/-	5.39E-01	1.28E+00	3.68E-04	+/-	1.69E-05
m 23	324.15	6.53E+00	+/-	5.90E-01	1.28E+00	3.66E-04	+/-	1.67E-05
M 24	333.39	4.54E+01	+/-	1.20E+00	1.28E+00	3.57E-04	+/-	1.65E-05
m 25	336.35	1.83E+01	+/-	6.29E-01	1.28E+00	3.54E-04	+/-	1.65E-05
M 26	342.23	1.26E+00	+/-	1.30E-01	1.27E+00	3.49E-04	+/-	1.65E-05
m 27	345.69	3.95E+01	+/-	6.05E-01	1.27E+00	3.46E-04	+/-	1.65E-05
28	368.92	3.14E+00	+/-	1.04E+00	1.26E+00	3.26E-04	+/-	1.70E-05
29	375.71	7.25E+01	+/-	1.73E+00	1.26E+00	3.21E-04	+/-	1.71E-05
M 30	380.91	1.75E+01	+/-	6.80E-01	1.26E+00	3.17E-04	+/-	1.72E-05
m 31	383.46	1.65E+01	+/-	6.35E-01	1.26E+00	3.15E-04	+/-	1.73E-05
32	393.56	3.57E+01	+/-	8.88E-01	1.25E+00	3.08E-04	+/-	1.75E-05
33	413.70	9.78E+01	+/-	1.61E+00	1.25E+00	2.94E-04	+/-	1.78E-05
34	423.24	5.88E+00	+/-	3.57E-01	1.25E+00	2.87E-04	+/-	1.79E-05
35	452.15	1.14E+01	+/-	4.42E-01	1.24E+00	2.70E-04	+/-	1.78E-05
36	619.84	1.15E+00	+/-	1.76E-01	1.20E+00	2.02E-04	+/-	1.27E-05
37	646.80	7.23E-01	+/-	1.13E-01	1.20E+00	1.94E-04	+/-	1.18E-05
M 38	659.54	2.61E-01	+/-	7.70E-02	1.19E+00	1.91E-04	+/-	1.14E-05
m 39	663.22	5.15E+00	+/-	3.69E-01	1.19E+00	1.90E-04	+/-	1.12E-05
40	689.53	4.45E-01	+/-	1.16E-01	1.19E+00	1.84E-04	+/-	1.05E-05
41	704.36	2.27E-01	+/-	1.10E-01	1.19E+00	1.81E-04	+/-	1.00E-05
42	722.01	2.20E+00	+/-	1.74E-01	1.18E+00	1.77E-04	+/-	9.59E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	757.05	1.79E-01 +/- 8.89E-02	1.18E+00	1.70E-04 +/- 8.81E-06
44	770.24	6.33E-01 +/- 9.70E-02	1.18E+00	1.68E-04 +/- 8.56E-06
45	2236.00	1.00E+02 +/- 1.60E+00	1.10E+00	7.00E-05 +/- 3.84E-05

Segment: 5

Detector: DET01 (# 1)

Position: 5

Elapsed Live Time: 84.09 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Minimum transmission used.

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.005 +/- 0.0025
SE-75	264.65	0.000 +/- 0.0000	0.208 +/- 0.0049
SE-75	279.53	0.000 +/- 0.0000	0.226 +/- 0.0061
SE-75	400.65	0.000 +/- 0.0000	0.356 +/- 0.0101

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.02	1.36E+01 +/- 8.83E-01	4.10E+00	2.74E-07 +/- 1.81E-06
2	50.01	1.76E+01 +/- 2.07E+00	4.10E+00	1.58E-05 +/- 4.30E-05
3	60.11	1.08E+03 +/- 1.48E+01	4.10E+00	4.77E-05 +/- 8.21E-05
4	75.25	3.62E+00 +/- 2.25E+00	4.10E+00	1.28E-04 +/- 1.12E-04
5	99.28	3.62E+02 +/- 6.65E+00	4.10E+00	2.77E-04 +/- 7.12E-05
6	111.64	7.49E+01 +/- 3.30E+00	4.10E+00	3.41E-04 +/- 3.83E-05
7	116.29	4.31E+01 +/- 4.37E+00	4.10E+00	3.61E-04 +/- 2.89E-05
M 8	125.88	4.71E+01 +/- 1.34E+00	4.10E+00	3.97E-04 +/- 2.36E-05
m 9	129.91	3.34E+02 +/- 5.48E+00	4.10E+00	4.09E-04 +/- 2.71E-05
10	148.57	3.86E+01 +/- 2.17E+00	3.12E+00	4.48E-04 +/- 4.84E-05
11	172.02	1.55E+01 +/- 1.99E+00	2.51E+00	4.67E-04 +/- 5.93E-05
12	179.76	1.24E+01 +/- 2.02E+00	2.39E+00	4.67E-04 +/- 5.93E-05
13	189.94	1.12E+01 +/- 1.38E+00	2.26E+00	4.65E-04 +/- 5.76E-05
14	196.31	1.49E+01 +/- 1.48E+00	2.19E+00	4.63E-04 +/- 5.58E-05
15	204.16	5.30E+01 +/- 2.11E+00	2.11E+00	4.58E-04 +/- 5.30E-05
16	208.64	1.72E+02 +/- 3.75E+00	2.07E+00	4.56E-04 +/- 5.12E-05
M 17	222.43	3.50E+00 +/- 9.34E-01	1.96E+00	4.45E-04 +/- 4.51E-05
m 18	225.72	2.51E+00 +/- 7.71E-01	1.94E+00	4.42E-04 +/- 4.36E-05
19	256.00	1.08E+01 +/- 1.07E+00	1.76E+00	4.14E-04 +/- 3.05E-05

Canberra SGS Assay Report 12-13-07 8:46:15 AM Page 7
Instrument ID: SGS Can ID: S100-2501 Count Sequence #: 2501

M 20	264.60	5.15E+00	+/-	6.00E-01	1.71E+00	4.06E-04	+/-	2.74E-05
m 21	268.12	9.76E+00	+/-	8.68E-01	1.70E+00	4.03E-04	+/-	2.62E-05
22	298.09	6.55E+00	+/-	1.26E+00	1.63E+00	3.74E-04	+/-	1.90E-05
23	311.90	1.03E+01	+/-	9.79E-01	1.60E+00	3.62E-04	+/-	1.74E-05
M 24	321.70	7.47E+00	+/-	7.52E-01	1.58E+00	3.53E-04	+/-	1.68E-05
m 25	324.08	1.16E+01	+/-	8.97E-01	1.57E+00	3.51E-04	+/-	1.68E-05
M 26	333.34	8.79E+01	+/-	2.01E+00	1.55E+00	3.43E-04	+/-	1.67E-05
m 27	336.31	2.80E+01	+/-	9.04E-01	1.55E+00	3.41E-04	+/-	1.67E-05
M 28	342.09	9.76E+00	+/-	5.15E-01	1.54E+00	3.36E-04	+/-	1.68E-05
m 29	345.65	7.88E+01	+/-	1.89E+00	1.53E+00	3.33E-04	+/-	1.69E-05
30	375.67	1.47E+02	+/-	2.99E+00	1.48E+00	3.11E-04	+/-	1.79E-05
M 31	380.84	3.54E+01	+/-	1.08E+00	1.47E+00	3.07E-04	+/-	1.81E-05
m 32	383.43	3.36E+01	+/-	1.02E+00	1.47E+00	3.06E-04	+/-	1.82E-05
33	393.54	7.59E+01	+/-	1.54E+00	1.45E+00	2.99E-04	+/-	1.85E-05
34	400.66	9.25E-01	+/-	5.69E-01	1.44E+00	2.94E-04	+/-	1.87E-05
35	413.70	1.94E+02	+/-	3.03E+00	1.44E+00	2.86E-04	+/-	1.90E-05
36	423.20	1.13E+01	+/-	5.96E-01	1.43E+00	2.81E-04	+/-	1.91E-05
37	446.31	9.24E-01	+/-	5.04E-01	1.42E+00	2.68E-04	+/-	1.91E-05
38	452.11	2.27E+01	+/-	6.93E-01	1.42E+00	2.65E-04	+/-	1.91E-05
39	619.56	2.14E+00	+/-	2.56E-01	1.35E+00	2.01E-04	+/-	1.37E-05
40	646.57	8.85E-01	+/-	1.85E-01	1.34E+00	1.94E-04	+/-	1.27E-05
41	653.33	8.46E-01	+/-	2.94E-01	1.34E+00	1.92E-04	+/-	1.24E-05
42	662.42	1.07E+01	+/-	4.26E-01	1.34E+00	1.90E-04	+/-	1.21E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	689.42	6.66E-01 +/- 1.68E-01	1.33E+00	1.84E-04 +/- 1.11E-05
44	710.24	2.37E-01 +/- 1.01E-01	1.32E+00	1.79E-04 +/- 1.04E-05
45	722.01	4.88E+00 +/- 2.87E-01	1.32E+00	1.77E-04 +/- 1.01E-05
46	756.88	3.53E-01 +/- 1.03E-01	1.31E+00	1.70E-04 +/- 9.13E-06
47	770.04	1.06E+00 +/- 1.73E-01	1.31E+00	1.67E-04 +/- 8.82E-06
48	778.90	9.22E-02 +/- 5.49E-02	1.31E+00	1.66E-04 +/- 8.62E-06
49	1085.91	1.22E-01 +/- 5.44E-02	1.25E+00	1.26E-04 +/- 5.69E-06
50	2236.00	1.00E+02 +/- 1.72E+00	1.18E+00	5.76E-05 +/- 3.29E-05

Segment: 6

Detector: DET01 (# 1)

Position: 6

Elapsed Live Time: 84.35 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Minimum transmission used.

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.005 +/- 0.0025
SE-75	264.65	0.000 +/- 0.0000	0.203 +/- 0.0033
SE-75	279.53	0.000 +/- 0.0000	0.230 +/- 0.0050
SE-75	400.65	0.000 +/- 0.0000	0.338 +/- 0.0079

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.06	3.00E+01 +/- 1.28E+00	4.10E+00	4.73E-07 +/- 2.97E-06
2	49.98	1.22E+01 +/- 2.02E+00	4.10E+00	2.16E-05 +/- 5.58E-05
3	60.11	1.00E+03 +/- 1.38E+01	4.10E+00	6.05E-05 +/- 9.92E-05
4	99.27	3.93E+01 +/- 5.82E+00	4.10E+00	3.05E-04 +/- 7.52E-05
5	103.95	3.55E+02 +/- 6.17E+00	4.10E+00	3.31E-04 +/- 6.11E-05
6	111.62	7.02E+01 +/- 3.27E+00	4.10E+00	3.68E-04 +/- 4.02E-05
7	116.23	6.43E+01 +/- 4.16E+00	4.10E+00	3.88E-04 +/- 3.04E-05
8	129.29	2.85E+02 +/- 4.67E+00	4.10E+00	4.31E-04 +/- 2.73E-05
M 9	144.76	2.29E+01 +/- 1.01E+00	3.31E+00	4.64E-04 +/- 4.49E-05
m 10	146.92	1.97E+01 +/- 9.43E-01	3.20E+00	4.67E-04 +/- 4.69E-05
m 11	149.17	4.82E+01 +/- 1.59E+00	3.11E+00	4.70E-04 +/- 4.89E-05
12	165.26	5.68E+00 +/- 1.38E+00	2.65E+00	4.83E-04 +/- 5.76E-05
13	171.99	1.73E+01 +/- 2.08E+00	2.53E+00	4.85E-04 +/- 5.88E-05
14	179.79	9.25E+00 +/- 2.00E+00	2.41E+00	4.85E-04 +/- 5.88E-05

15	189.82	9.76E+00	+/-	9.42E-01	2.28E+00	4.82E-04	+/-	5.72E-05
16	196.20	1.39E+01	+/-	1.69E+00	2.21E+00	4.80E-04	+/-	5.54E-05
17	208.64	2.08E+02	+/-	3.83E+00	2.09E+00	4.72E-04	+/-	5.09E-05
18	238.57	1.99E+00	+/-	8.18E-01	1.87E+00	4.49E-04	+/-	3.80E-05
19	255.99	1.28E+01	+/-	1.26E+00	1.77E+00	4.33E-04	+/-	3.09E-05
M 20	264.58	3.62E+00	+/-	5.21E-01	1.73E+00	4.25E-04	+/-	2.79E-05
m 21	268.12	1.04E+01	+/-	9.03E-01	1.71E+00	4.22E-04	+/-	2.67E-05
22	298.08	7.24E+00	+/-	1.24E+00	1.62E+00	3.94E-04	+/-	1.97E-05
23	311.90	1.11E+01	+/-	9.70E-01	1.60E+00	3.82E-04	+/-	1.81E-05
M 24	321.64	9.06E+00	+/-	8.05E-01	1.58E+00	3.74E-04	+/-	1.75E-05
m 25	324.00	1.19E+01	+/-	8.69E-01	1.58E+00	3.72E-04	+/-	1.74E-05
M 26	333.35	8.58E+01	+/-	1.97E+00	1.56E+00	3.65E-04	+/-	1.73E-05
m 27	336.29	2.94E+01	+/-	9.26E-01	1.56E+00	3.62E-04	+/-	1.73E-05
M 28	342.07	9.02E+00	+/-	5.02E-01	1.55E+00	3.58E-04	+/-	1.74E-05
m 29	345.62	7.75E+01	+/-	1.86E+00	1.55E+00	3.55E-04	+/-	1.74E-05
30	375.68	1.45E+02	+/-	2.95E+00	1.50E+00	3.34E-04	+/-	1.84E-05
M 31	380.84	3.43E+01	+/-	1.07E+00	1.49E+00	3.30E-04	+/-	1.86E-05
m 32	383.39	3.24E+01	+/-	1.00E+00	1.49E+00	3.28E-04	+/-	1.87E-05
33	393.55	7.15E+01	+/-	1.51E+00	1.48E+00	3.22E-04	+/-	1.90E-05
34	413.70	1.90E+02	+/-	2.97E+00	1.46E+00	3.09E-04	+/-	1.95E-05
35	452.12	2.29E+01	+/-	6.80E-01	1.44E+00	2.88E-04	+/-	1.97E-05
36	597.83	3.63E-01	+/-	1.62E-01	1.38E+00	2.29E-04	+/-	1.52E-05
37	619.70	2.22E+00	+/-	2.73E-01	1.37E+00	2.22E-04	+/-	1.43E-05
38	633.78	2.55E-01	+/-	1.20E-01	1.37E+00	2.18E-04	+/-	1.37E-05
39	641.57	5.46E-01	+/-	2.76E-01	1.36E+00	2.16E-04	+/-	1.34E-05
40	646.58	9.88E-01	+/-	2.15E-01	1.36E+00	2.15E-04	+/-	1.32E-05
M 41	659.71	9.72E-01	+/-	1.36E-01	1.36E+00	2.11E-04	+/-	1.27E-05
m 42	663.15	9.25E+00	+/-	5.32E-01	1.36E+00	2.10E-04	+/-	1.26E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	689.49	8.59E-01 +/- 1.78E-01	1.35E+00	2.03E-04 +/- 1.16E-05
44	704.29	3.03E-01 +/- 1.10E-01	1.34E+00	2.00E-04 +/- 1.11E-05
45	722.01	4.52E+00 +/- 2.75E-01	1.34E+00	1.95E-04 +/- 1.05E-05
46	756.99	5.49E-01 +/- 1.21E-01	1.33E+00	1.88E-04 +/- 9.53E-06
47	770.03	1.35E+00 +/- 1.69E-01	1.33E+00	1.85E-04 +/- 9.20E-06
48	964.13	7.18E-02 +/- 4.10E-02	1.28E+00	1.51E-04 +/- 6.52E-06
49	2236.00	1.00E+02 +/- 1.71E+00	1.19E+00	4.34E-05 +/- 2.42E-05
50	2295.48	1.03E-01 +/- 7.57E-02	1.18E+00	4.07E-05 +/- 2.49E-05

Segment: 7

Detector: DET01 (# 1)

Position: 7

Elapsed Live Time: 95.84 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.061 +/- 0.0080
SE-75	264.65	0.000 +/- 0.0000	0.292 +/- 0.0028
SE-75	279.53	0.000 +/- 0.0000	0.306 +/- 0.0049
SE-75	400.65	0.000 +/- 0.0000	0.417 +/- 0.0078

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.07	1.89E+01 +/- 9.32E-01	4.10E+00	5.01E-09 +/- 2.87E-08
2	50.15	1.33E+01 +/- 1.70E+00	3.11E+00	2.94E-06 +/- 6.89E-06
3	60.12	6.66E+02 +/- 8.95E+00	2.89E+00	1.59E-05 +/- 2.38E-05
4	99.32	2.06E+02 +/- 4.26E+00	2.54E+00	2.43E-04 +/- 5.53E-05
5	111.66	4.34E+01 +/- 2.37E+00	2.49E+00	3.35E-04 +/- 3.49E-05
6	116.22	3.68E+01 +/- 3.01E+00	2.47E+00	3.66E-04 +/- 2.83E-05
M 7	125.90	2.94E+01 +/- 9.57E-01	2.44E+00	4.24E-04 +/- 2.46E-05
m 8	129.94	1.96E+02 +/- 3.43E+00	2.43E+00	4.45E-04 +/- 2.77E-05
9	148.57	2.24E+01 +/- 1.38E+00	2.24E+00	5.16E-04 +/- 4.85E-05
10	161.57	2.31E+00 +/- 1.42E+00	2.10E+00	5.43E-04 +/- 5.77E-05
11	172.08	9.47E+00 +/- 1.33E+00	2.01E+00	5.55E-04 +/- 6.09E-05
12	179.78	3.56E+00 +/- 1.37E+00	1.95E+00	5.58E-04 +/- 6.12E-05
13	190.00	3.99E+00 +/- 8.61E-01	1.88E+00	5.58E-04 +/- 5.97E-05
14	196.38	8.08E+00 +/- 1.35E+00	1.84E+00	5.56E-04 +/- 5.79E-05
15	208.66	1.12E+02 +/- 2.40E+00	1.77E+00	5.47E-04 +/- 5.32E-05
16	238.29	1.59E+00 +/- 7.99E-01	1.64E+00	5.14E-04 +/- 3.94E-05
17	255.99	5.02E+00 +/- 8.34E-01	1.57E+00	4.90E-04 +/- 3.18E-05

M 18	264.69	2.45E+00	+/-	4.05E-01	1.54E+00	4.78E-04	+/-	2.86E-05
m 19	268.19	5.74E+00	+/-	6.41E-01	1.53E+00	4.74E-04	+/-	2.74E-05
M 20	298.10	4.15E+00	+/-	5.84E-01	1.49E+00	4.34E-04	+/-	2.02E-05
m 21	300.75	9.17E-01	+/-	3.02E-01	1.49E+00	4.30E-04	+/-	1.98E-05
22	311.90	6.57E+00	+/-	1.07E+00	1.47E+00	4.17E-04	+/-	1.86E-05
M 23	321.70	3.98E+00	+/-	5.50E-01	1.46E+00	4.05E-04	+/-	1.79E-05
m 24	324.02	6.54E+00	+/-	6.63E-01	1.45E+00	4.02E-04	+/-	1.78E-05
M 25	333.40	5.02E+01	+/-	1.31E+00	1.44E+00	3.91E-04	+/-	1.76E-05
m 26	336.38	1.95E+01	+/-	6.62E-01	1.44E+00	3.88E-04	+/-	1.76E-05
M 27	342.16	1.84E+00	+/-	3.41E-01	1.43E+00	3.82E-04	+/-	1.76E-05
m 28	345.69	4.12E+01	+/-	1.22E+00	1.43E+00	3.78E-04	+/-	1.76E-05
29	368.89	3.82E+00	+/-	1.13E+00	1.40E+00	3.55E-04	+/-	1.81E-05
30	375.71	7.70E+01	+/-	1.86E+00	1.39E+00	3.48E-04	+/-	1.82E-05
M 31	380.89	1.94E+01	+/-	7.39E-01	1.39E+00	3.44E-04	+/-	1.83E-05
m 32	383.43	1.79E+01	+/-	6.78E-01	1.39E+00	3.42E-04	+/-	1.84E-05
33	393.56	3.89E+01	+/-	9.60E-01	1.38E+00	3.33E-04	+/-	1.86E-05
34	413.70	1.07E+02	+/-	1.76E+00	1.36E+00	3.17E-04	+/-	1.88E-05
35	423.22	6.52E+00	+/-	5.36E-01	1.36E+00	3.10E-04	+/-	1.88E-05
36	452.15	1.20E+01	+/-	5.09E-01	1.35E+00	2.90E-04	+/-	1.86E-05
37	482.20	3.26E-01	+/-	1.43E-01	1.34E+00	2.72E-04	+/-	1.80E-05
38	619.74	1.10E+00	+/-	1.87E-01	1.29E+00	2.15E-04	+/-	1.32E-05
39	640.35	3.07E-01	+/-	2.01E-01	1.29E+00	2.09E-04	+/-	1.25E-05
40	646.52	5.02E-01	+/-	1.31E-01	1.29E+00	2.07E-04	+/-	1.23E-05
41	653.32	7.14E-01	+/-	1.67E-01	1.28E+00	2.06E-04	+/-	1.20E-05
M 42	659.68	3.99E-01	+/-	8.66E-02	1.28E+00	2.04E-04	+/-	1.18E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
m 43	663.10	5.19E+00 +/-	3.73E-01	1.28E+00 2.03E-04 +/- 1.17E-05
44	689.48	5.86E-01 +/-	1.04E-01	1.28E+00 1.96E-04 +/- 1.09E-05
45	704.52	1.71E-01 +/-	7.13E-02	1.27E+00 1.93E-04 +/- 1.05E-05
46	722.01	2.54E+00 +/-	1.91E-01	1.27E+00 1.89E-04 +/- 9.99E-06
47	770.05	7.57E-01 +/-	1.16E-01	1.26E+00 1.79E-04 +/- 8.90E-06
48	1112.12	7.76E-02 +/-	3.65E-02	1.21E+00 1.32E-04 +/- 5.60E-06
49	2236.00	1.00E+02 +/-	1.63E+00	1.15E+00 5.07E-05 +/- 2.69E-05

Segment: 8 Detector: DET01 (# 1) Position: 8

Elapsed Live Time: 108.11 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.327 +/- 0.0107
SE-75	264.65	0.000 +/- 0.0000	0.508 +/- 0.0035
SE-75	279.53	0.000 +/- 0.0000	0.520 +/- 0.0055
SE-75	400.65	0.000 +/- 0.0000	0.569 +/- 0.0083

PEAK ANALYSIS RESULTS			
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor
1	31.98	7.35E+00 +/-	5.33E-01 2.05E+00 7.56E-06 +/- 7.37E-06
2	49.96	2.71E+00 +/-	8.65E-01 1.71E+00 5.91E-05 +/- 2.92E-05
3	60.14	1.98E+02 +/-	2.95E+00 1.64E+00 1.10E-04 +/- 3.84E-05
4	99.32	5.71E+01 +/-	1.96E+00 1.53E+00 3.24E-04 +/- 3.31E-05
5	111.68	1.20E+01 +/-	1.32E+00 1.51E+00 3.75E-04 +/- 2.73E-05
6	116.06	7.57E+00 +/-	1.61E+00 1.50E+00 3.90E-04 +/- 2.56E-05
M 7	125.95	9.79E+00 +/-	5.24E-01 1.49E+00 4.19E-04 +/- 2.31E-05
m 8	129.97	5.54E+01 +/-	1.42E+00 1.49E+00 4.29E-04 +/- 2.26E-05
9	148.57	7.32E+00 +/-	8.00E-01 1.46E+00 4.62E-04 +/- 2.28E-05
10	171.98	2.81E+00 +/-	9.94E-01 1.41E+00 4.80E-04 +/- 2.51E-05
11	179.68	2.40E+00 +/-	8.58E-01 1.40E+00 4.81E-04 +/- 2.56E-05
12	196.24	1.89E+00 +/-	6.11E-01 1.37E+00 4.79E-04 +/- 2.62E-05
13	208.68	2.96E+01 +/-	1.09E+00 1.35E+00 4.74E-04 +/- 2.60E-05
14	256.12	1.48E+00 +/-	5.64E-01 1.29E+00 4.39E-04 +/- 2.28E-05
15	268.14	1.59E+00 +/-	7.39E-01 1.28E+00 4.28E-04 +/- 2.17E-05
16	298.27	8.99E-01 +/-	5.68E-01 1.26E+00 4.01E-04 +/- 1.90E-05
17	311.90	1.58E+00 +/-	5.83E-01 1.26E+00 3.88E-04 +/- 1.78E-05
18	324.33	3.07E+00 +/-	5.82E-01 1.25E+00 3.77E-04 +/- 1.69E-05

M 19	333.43	1.27E+01	+/-	6.11E-01	1.25E+00	3.69E-04	+/-	1.62E-05
m 20	336.31	4.37E+00	+/-	3.18E-01	1.25E+00	3.67E-04	+/-	1.60E-05
M 21	342.32	1.27E+00	+/-	1.98E-01	1.25E+00	3.61E-04	+/-	1.56E-05
m 22	345.67	1.15E+01	+/-	5.96E-01	1.25E+00	3.59E-04	+/-	1.54E-05
23	368.80	4.47E+00	+/-	4.92E-01	1.24E+00	3.40E-04	+/-	1.42E-05
24	375.71	2.10E+01	+/-	8.37E-01	1.24E+00	3.34E-04	+/-	1.38E-05
M 25	380.95	5.29E+00	+/-	3.61E-01	1.24E+00	3.30E-04	+/-	1.36E-05
m 26	383.43	4.89E+00	+/-	3.27E-01	1.23E+00	3.28E-04	+/-	1.35E-05
27	393.55	1.07E+01	+/-	4.36E-01	1.23E+00	3.21E-04	+/-	1.31E-05
28	413.70	2.78E+01	+/-	6.57E-01	1.23E+00	3.06E-04	+/-	1.25E-05
29	423.26	1.63E+00	+/-	1.96E-01	1.22E+00	3.00E-04	+/-	1.22E-05
30	452.12	3.54E+00	+/-	2.31E-01	1.22E+00	2.82E-04	+/-	1.16E-05
31	619.68	3.10E-01	+/-	8.57E-02	1.18E+00	2.06E-04	+/-	9.86E-06
32	646.28	2.09E-01	+/-	6.73E-02	1.18E+00	1.98E-04	+/-	9.58E-06
33	662.42	1.34E+00	+/-	1.30E-01	1.18E+00	1.93E-04	+/-	9.41E-06
34	722.01	6.58E-01	+/-	9.60E-02	1.17E+00	1.78E-04	+/-	8.71E-06
35	1001.03	5.37E-02	+/-	2.77E-02	1.14E+00	1.35E-04	+/-	5.36E-06
36	1408.01	9.34E-03	+/-	9.34E-03	1.11E+00	1.13E-04	+/-	7.00E-06
37	2236.00	1.00E+02	+/-	1.54E+00	1.09E+00	1.19E-04	+/-	2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 112.62 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.346 +/- 0.0097
SE-75	264.65	0.000 +/- 0.0000	0.507 +/- 0.0034
SE-75	279.53	0.000 +/- 0.0000	0.517 +/- 0.0053
SE-75	400.65	0.000 +/- 0.0000	0.564 +/- 0.0080

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.04	1.17E+00	+/- 2.07E-01	1.99E+00
2	60.04	2.91E+01	+/- 8.64E-01	1.60E+00
3	99.41	3.01E+00	+/- 9.06E-01	1.50E+00
4	129.29	2.14E+00	+/- 5.73E-01	1.46E+00
5	208.62	8.14E-01	+/- 2.71E-01	1.34E+00
6	375.75	5.69E-01	+/- 1.60E-01	1.24E+00
7	413.70	4.13E-01	+/- 1.09E-01	1.23E+00
8	443.98	1.27E-01	+/- 7.84E-02	1.22E+00
9	452.28	1.49E-01	+/- 5.07E-02	1.22E+00
10	964.13	1.76E-02	+/- 1.24E-02	1.14E+00
11	2236.00	1.00E+02	+/- 1.51E+00	1.10E+00

Segment: 10

Detector: DET01 (# 1)

Position: 10

Elapsed Live Time: 113.25 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.308 +/- 0.0084
SE-75	264.65	0.000 +/- 0.0000	0.467 +/- 0.0032
SE-75	279.53	0.000 +/- 0.0000	0.479 +/- 0.0049
SE-75	400.65	0.000 +/- 0.0000	0.522 +/- 0.0075

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.07	1.44E+00 +/- 2.42E-01	2.12E+00	1.67E-05 +/- 1.66E-05
2	59.99	1.21E+01 +/- 6.07E-01	1.67E+00	1.36E-04 +/- 4.88E-05
3	67.59	9.59E-01 +/- 4.47E-01	1.64E+00	1.78E-04 +/- 4.97E-05
4	94.27	4.68E+00 +/- 8.85E-01	1.57E+00	3.10E-04 +/- 3.72E-05
5	104.02	8.16E-01 +/- 4.60E-01	1.55E+00	3.47E-04 +/- 3.13E-05
6	375.92	1.81E-01 +/- 8.51E-02	1.27E+00	3.40E-04 +/- 1.40E-05
7	1112.12	4.36E-02 +/- 1.95E-02	1.15E+00	1.29E-04 +/- 4.78E-06
8	1461.98	5.29E-02 +/- 2.47E-02	1.13E+00	1.06E-04 +/- 7.66E-06
9	2236.00	1.00E+02 +/- 1.50E+00	1.11E+00	9.04E-05 +/- 2.29E-05

Segment: 11

Detector: DET01 (# 1)

Position: 11

Elapsed Live Time: 113.54 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.224 +/- 0.0077
SE-75	264.65	0.000 +/- 0.0000	0.330 +/- 0.0026
SE-75	279.53	0.000 +/- 0.0000	0.336 +/- 0.0040
SE-75	400.65	0.000 +/- 0.0000	0.384 +/- 0.0062

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.87	1.18E+00 +/-	2.03E-01	2.50E+00 1.35E-03 +/- 8.80E-03
2	49.58	1.07E+00 +/-	3.55E-01	2.00E+00 6.06E-04 +/- 1.65E-03
3	60.05	5.77E+00 +/-	4.72E-01	1.89E+00 5.04E-04 +/- 8.52E-04
4	121.11	7.44E-01 +/-	4.48E-01	1.70E+00 4.01E-04 +/- 2.46E-05
5	722.01	2.66E-02 +/-	1.97E-02	1.30E+00 1.97E-04 +/- 1.08E-05
6	867.39	5.02E-02 +/-	3.22E-02	1.26E+00 1.63E-04 +/- 7.48E-06
7	1001.03	8.69E-03 +/-	8.69E-03	1.24E+00 1.39E-04 +/- 6.19E-06
8	1112.12	5.21E-02 +/-	2.13E-02	1.23E+00 1.23E-04 +/- 5.40E-06
9	1174.21	6.08E-02 +/-	2.97E-02	1.22E+00 1.16E-04 +/- 5.07E-06
10	1462.33	6.95E-02 +/-	2.46E-02	1.20E+00 8.96E-05 +/- 7.60E-06
11	2236.00	1.00E+02 +/-	1.50E+00	1.16E+00 5.79E-05 +/- 3.30E-05

Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 113.78 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.081 +/- 0.0050
SE-75	264.65	0.000 +/- 0.0000	0.143 +/- 0.0016
SE-75	279.53	0.000 +/- 0.0000	0.150 +/- 0.0026
SE-75	400.65	0.000 +/- 0.0000	0.186 +/- 0.0041

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.04	9.82E-01 +/-	1.91E-01	3.83E+00 2.37E-09 +/- 1.46E-08
2	60.05	3.52E+00 +/-	3.53E-01	2.66E+00 1.28E-05 +/- 2.05E-05
3	311.90	3.02E-01 +/-	1.68E-01	1.85E+00 3.88E-04 +/- 1.81E-05
4	443.98	9.81E-02 +/-	4.47E-02	1.73E+00 2.67E-04 +/- 1.83E-05
5	512.21	1.83E-01 +/-	6.03E-02	1.68E+00 2.30E-04 +/- 1.67E-05
6	867.39	3.47E-02 +/-	1.74E-02	1.49E+00 1.48E-04 +/- 7.05E-06
7	964.13	6.94E-02 +/-	2.45E-02	1.46E+00 1.38E-04 +/- 6.29E-06
8	1001.03	3.25E-02 +/-	1.75E-02	1.45E+00 1.35E-04 +/- 6.07E-06
9	1112.12	1.73E-02 +/-	1.23E-02	1.42E+00 1.27E-04 +/- 5.46E-06
10	2236.00	1.00E+02 +/-	1.50E+00	1.30E+00 6.48E-05 +/- 3.54E-05

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 113.99 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.308 +/- 0.0085
SE-75	264.65	0.000 +/- 0.0000	0.409 +/- 0.0029
SE-75	279.53	0.000 +/- 0.0000	0.418 +/- 0.0045
SE-75	400.65	0.000 +/- 0.0000	0.453 +/- 0.0068

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.88	4.87E-01 +/- 1.44E-01	2.13E+00	1.60E-08 +/- 1.05E-07
2	48.95	1.94E+00 +/- 3.19E-01	1.76E+00	4.05E-06 +/- 1.14E-05
3	59.77	6.12E-01 +/- 2.75E-01	1.68E+00	2.18E-05 +/- 3.76E-05
4	244.70	2.88E-01 +/- 1.94E-01	1.40E+00	4.50E-04 +/- 3.61E-05
5	413.70	8.54E-02 +/- 5.54E-02	1.33E+00	2.89E-04 +/- 1.94E-05
6	662.42	3.17E-02 +/- 3.04E-02	1.25E+00	1.92E-04 +/- 1.21E-05
7	778.90	2.60E-02 +/- 1.50E-02	1.23E+00	1.70E-04 +/- 8.63E-06
8	1408.01	2.33E-02 +/- 2.15E-02	1.16E+00	1.05E-04 +/- 7.00E-06
9	2236.00	1.00E+02 +/- 1.50E+00	1.13E+00	5.36E-05 +/- 3.03E-05

Segment: 14

Detector: DET01 (# 1)

Position: 14

Elapsed Live Time: 114.14 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.763 +/- 0.0140
SE-75	264.65	0.000 +/- 0.0000	0.847 +/- 0.0047
SE-75	279.53	0.000 +/- 0.0000	0.866 +/- 0.0072
SE-75	400.65	0.000 +/- 0.0000	0.887 +/- 0.0107

P E A K A N A L Y S I S R E S U L T S					
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency	
1	60.01	9.06E-01 +/- 2.22E-01	1.14E+00	9.50E-05 +/- 1.50E-04	
2	413.70	9.26E-02 +/- 5.03E-02	1.05E+00	2.98E-04 +/- 1.80E-05	
3	443.98	4.99E-02 +/- 3.56E-02	1.04E+00	2.80E-04 +/- 1.81E-05	
4	778.90	2.62E-02 +/- 1.52E-02	1.03E+00	1.70E-04 +/- 8.37E-06	
5	2236.00	1.00E+02 +/- 1.50E+00	1.02E+00	7.64E-05 +/- 4.15E-05	

Segment: 15

Detector: DET01 (# 1)

Position: 15

Elapsed Live Time: 114.19 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S			
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.807 +/- 0.0194
SE-75	264.65	0.000 +/- 0.0000	0.877 +/- 0.0148
SE-75	279.53	0.000 +/- 0.0000	0.879 +/- 0.0159
SE-75	400.65	0.000 +/- 0.0000	0.899 +/- 0.0180

P E A K A N A L Y S I S R E S U L T S					
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency	
1	49.59	1.77E+00 +/- 2.72E-01	1.12E+00	1.61E-06 +/- 4.26E-06	
2	60.14	3.87E-01 +/- 1.76E-01	1.11E+00	1.22E-05 +/- 2.02E-05	
3	152.68	3.72E-01 +/- 2.09E-01	1.08E+00	4.90E-04 +/- 5.37E-05	
4	311.90	1.86E-01 +/- 7.72E-02	1.05E+00	3.47E-04 +/- 1.64E-05	
5	375.41	7.79E-02 +/- 4.59E-02	1.04E+00	2.88E-04 +/- 1.58E-05	
6	512.09	1.35E-01 +/- 5.03E-02	1.04E+00	2.15E-04 +/- 1.54E-05	
7	662.42	3.76E-02 +/- 2.92E-02	1.03E+00	1.75E-04 +/- 1.08E-05	
8	722.01	1.73E-02 +/- 1.22E-02	1.03E+00	1.64E-04 +/- 9.17E-06	
9	964.13	3.06E-02 +/- 2.40E-02	1.03E+00	1.33E-04 +/- 6.09E-06	
10	1001.03	2.59E-02 +/- 1.98E-02	1.03E+00	1.29E-04 +/- 5.86E-06	
11	2236.00	1.00E+02 +/- 1.49E+00	1.02E+00	3.18E-05 +/- 1.80E-05	

Segment: 16

Detector: DET01 (# 1)

Position: 16

Elapsed Live Time: 114.21 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.744 +/- 0.0138
SE-75	264.65	0.000 +/- 0.0000	0.829 +/- 0.0046
SE-75	279.53	0.000 +/- 0.0000	0.839 +/- 0.0071
SE-75	400.65	0.000 +/- 0.0000	0.845 +/- 0.0103

Peak No.	PEAK ANALYSIS RESULTS				
	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency	
1	85.18	1.01E+00 +/- 3.18E-01	1.13E+00	1.31E-04 +/-	2.50E-05
2	400.66	1.56E-01 +/- 5.63E-02	1.07E+00	1.84E-04 +/-	9.10E-06
3	413.70	7.74E-02 +/- 4.61E-02	1.06E+00	1.79E-04 +/-	8.85E-06
4	662.42	2.60E-02 +/- 1.50E-02	1.05E+00	1.15E-04 +/-	7.04E-06
5	722.01	4.76E-02 +/- 3.14E-02	1.05E+00	1.06E-04 +/-	6.56E-06
6	778.90	3.46E-02 +/- 1.73E-02	1.05E+00	9.86E-05 +/-	6.05E-06
7	2236.00	1.00E+02 +/- 1.50E+00	1.03E+00	6.28E-05 +/-	1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: S100-2501
Peak Locate Performed on: 12-13-07 8:45:56 AM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.68	0.1111	32.01	35.97
2	100.60	0.1535	49.97	14.75
3	120.90	0.0322	60.12	421.25
4	151.68	0.3081	75.51	5.05
5	199.26	0.0422	99.30	234.69
6	223.97	0.0606	111.65	116.35
7	233.13	0.0692	116.23	45.11
8	260.49	0.0422	129.91	224.16
9	299.13	0.0857	149.23	63.63
10	344.80	0.1628	172.07	17.52
11	360.18	0.1755	179.76	13.99
12	380.47	0.1526	189.90	17.34
13	393.26	0.1258	196.30	27.26
14	417.96	0.0434	208.65	222.15
15	445.02	0.2578	222.20	6.74
16	452.22	0.2912	225.83	5.02
17	477.46	0.2386	238.40	7.57
18	488.46	0.2096	243.90	7.89
19	512.65	0.1188	255.99	28.27
20	529.71	0.1959	264.58	11.27
21	537.01	0.1304	268.17	25.44
22	596.89	0.1397	298.11	22.87
23	625.59	0.1072	312.46	32.80
24	643.46	0.2027	321.69	11.64
25	649.04	0.1542	324.07	16.09
26	667.30	0.0598	333.37	110.30
27	673.82	0.0971	336.32	49.48
28	684.50	0.1477	342.12	24.23
29	691.99	0.0595	345.65	116.04
30	752.05	0.0453	375.69	194.05
31	762.06	0.0810	380.87	68.50
32	767.84	0.0898	383.43	57.25
33	787.78	0.0605	393.56	101.42
34	829.41	0.0444	414.37	178.87
35	847.13	0.0884	423.23	50.30
36	904.92	0.0786	452.13	63.15

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	965.06	0.2603	482.20	6.06
38	1240.04	0.1481	619.69	15.79
39	1268.07	0.2755	633.70	5.04
40	1293.81	0.1593	646.57	14.79
41	1307.32	0.1669	653.33	12.02
42	1319.28	0.2648	659.64	7.54
43	1326.91	0.0944	663.14	40.62
44	1379.70	0.1893	689.52	10.03
45	1409.43	0.2157	704.38	7.55
46	1446.23	0.1133	722.78	27.09
47	1514.67	0.2152	757.00	7.53
48	1540.84	0.1820	770.09	10.46
49	2349.59	0.2527	1174.46	5.14
50	2668.19	0.2431	1333.76	5.26
51	4451.93	0.2278	2225.63	5.15
52	4473.46	0.0272	2236.40	393.83

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: S100-2501
 Peak Analysis Performed on: 12-13-07 8:45:56 AM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area Uncert.	Continuum Counts
1	60-	71	64.68	32.01	1.11E+04	217.24		1.31E+04
2	94-	105	100.60	49.97	7.84E+03	394.21		5.70E+04
3	114-	127	120.90	60.12	3.20E+05	711.54		6.79E+04
4	145-	158	151.68	75.51	2.66E+03	420.86		6.24E+04
5	194-	203	199.26	99.30	1.07E+05	776.88		2.20E+05
6	217-	227	223.97	111.65	2.11E+04	547.23		1.13E+05
7	227-	239	233.13	116.23	1.85E+04	690.98		1.63E+05
8	256-	267	260.49	129.91	8.41E+04	502.80		6.57E+04
9	293-	304	299.13	149.23	1.09E+04	379.61		5.28E+04
10	338-	351	344.80	172.07	5.57E+03	372.55		4.82E+04
11	355-	367	360.18	179.76	2.87E+03	338.54		4.24E+04
12	373-	387	380.47	189.90	4.14E+03	371.82		4.65E+04
13	390-	400	393.26	196.30	4.60E+03	286.40		3.23E+04
14	413-	425	417.96	208.65	6.14E+04	452.02		5.22E+04
M 15	442-	459	445.06	222.20	7.50E+02	151.13		1.40E+04
m 16	442-	459	452.33	225.83	6.83E+02	140.15		1.71E+04
17	475-	482	477.46	238.40	5.57E+02	167.36		1.36E+04
18	482-	495	488.46	243.90	7.97E+02	257.14		2.37E+04
19	509-	519	512.65	255.99	3.46E+03	205.02		1.61E+04
M 20	525-	544	529.83	264.58	1.23E+03	99.68		1.21E+04
m 21	525-	544	537.00	268.17	3.07E+03	159.91		1.16E+04
22	592-	604	596.89	298.11	2.16E+03	199.56		1.43E+04
23	622-	631	625.59	312.46	3.26E+03	165.40		1.05E+04
M 24	638-	656	644.04	321.69	2.52E+03	136.33		1.22E+04
m 25	638-	656	648.81	324.07	3.59E+03	153.75		1.25E+04
M 26	663-	681	667.40	333.37	2.58E+04	265.71		9.11E+03
m 27	663-	681	673.31	336.32	8.70E+03	137.49		1.06E+04
M 28	681-	699	684.90	342.12	2.66E+03	82.65		6.23E+03
m 29	681-	699	691.97	345.65	2.35E+04	257.28		6.48E+03
30	746-	759	752.05	375.69	4.30E+04	360.75		2.86E+04
M 31	759-	775	762.41	380.87	1.04E+04	157.20		6.02E+03
m 32	759-	775	767.52	383.43	9.79E+03	146.44		4.52E+03
33	780-	795	787.78	393.56	2.16E+04	190.41		4.90E+03
34	821-	837	829.41	414.37	5.69E+04	262.22		3.80E+03
35	843-	851	847.13	423.23	3.44E+03	91.89		2.32E+03
36	899-	912	904.92	452.13	6.78E+03	103.66		1.44E+03
37	961-	969	965.06	482.20	1.02E+02	37.25		6.01E+02

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	1231-	1248	1240.04	619.69	6.45E+02	46.93	4.79E+02	
39	1263-	1272	1268.07	633.70	3.57E+01	23.89	2.34E+02	
40	1290-	1298	1293.81	646.57	3.14E+02	30.85	2.94E+02	
41	1299-	1315	1307.32	653.33	7.04E+01	51.21	8.16E+02	
M 42	1315-	1335	1319.95	659.64	2.13E+02	19.93	3.03E+02	
m 43	1315-	1335	1326.95	663.14	2.88E+03	84.00	2.19E+02	
44	1371-	1387	1379.70	689.52	2.70E+02	32.24	2.45E+02	
45	1406-	1417	1409.43	704.38	7.37E+01	24.28	1.98E+02	
46	1441-	1454	1446.23	722.78	1.37E+03	45.18	2.42E+02	
47	1509-	1523	1514.67	757.00	1.34E+02	23.11	1.37E+02	
48	1532-	1549	1540.84	770.09	3.75E+02	29.20	1.47E+02	
49	2340-	2354	2349.59	1174.46	3.68E+01	13.91	5.42E+01	
50	2663-	2672	2668.19	1333.76	5.18E+01	11.55	3.62E+01	
51	4441-	4458	4451.93	2225.63	5.96E+01	10.54	1.64E+01	
52	4466-	4483	4473.46	2236.40	1.73E+05	417.38	3.52E+02	

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: S100-2501
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	0.989	2236.00*	100.00	7.332E+02	2.002E+02
Np-237	0.744	300.10	6.63		
		311.90*	38.60	7.661E+00	3.959E-01
Pu-239	0.968	413.70*	0.00	4.283E+06	8.510E+04
Pu-239A	0.973	129.29*	0.01	1.231E+06	3.466E+04
Am-241	0.964	662.42*	0.00	1.196E+06	3.731E+04
Am-241D	0.959	722.01*	0.00	1.250E+06	4.342E+04
Pu-241	0.969	148.57*	0.00	4.801E+06	2.019E+05

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-13-07 8:45:56 AM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	32.01	1.0339E+02	1.97
2	49.97	7.2759E+01	5.04
3	60.12	2.9754E+03	0.34
4	75.51	2.4683E+01	15.83
5	99.30	9.9810E+02	0.77
6	111.65	1.9575E+02	2.61
7	116.23	1.7211E+02	3.74
10	172.07	5.1679E+01	6.70
11	179.76	2.6696E+01	11.78
12	189.90	3.8425E+01	8.99
13	196.30	4.2691E+01	6.24
14	208.65	5.7027E+02	0.78
M 15	222.20	6.9660E+00	20.15
m 16	225.83	6.3437E+00	20.52
17	238.40	5.1725E+00	30.05
18	243.90	7.4029E+00	32.26
19	255.99	3.2137E+01	5.93
M 20	264.58	1.1462E+01	8.08
m 21	268.17	2.8547E+01	5.21
22	298.11	2.0032E+01	9.25
M 24	321.69	2.3411E+01	5.41
m 25	324.07	3.3310E+01	4.29
M 26	333.37	2.3957E+02	1.06
m 27	336.32	8.0782E+01	1.60
M 28	342.12	2.4741E+01	3.11
m 29	345.65	2.1831E+02	1.13
30	375.69	3.9886E+02	0.88
M 31	380.87	9.6426E+01	1.54
m 32	383.43	9.0904E+01	1.52
33	393.56	2.0020E+02	0.92
35	423.23	3.1937E+01	2.68
36	452.13	6.2925E+01	1.55
37	482.20	9.4776E-01	36.49
38	619.69	5.9907E+00	7.28
39	633.70	3.3185E-01	66.85
40	646.57	2.9199E+00	9.81
41	653.33	6.5328E-01	72.79
M 42	659.64	1.9751E+00	9.37
44	689.52	2.5077E+00	11.94
45	704.38	6.8439E-01	32.94
47	757.00	1.2485E+00	17.19
48	770.09	3.4799E+00	7.80
49	1174.46	3.4217E-01	37.76
50	1333.76	4.8070E-01	22.30
51	2225.63	5.5385E-01	17.68

M = First peak in a multiplet region

m = Other peak in a multiplet region

Report for: S100-2501

12-13-07 8:46:39 AM

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F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)	Concentration (uCi/g)
Pulser	8.14E+02 +/- 1.20E+02	3.67E-02 +/- 5.40E-03
SE-75	< 5.65E-01 +/- 3.81E-02	< 2.55E-05 +/- 1.72E-06
EU-152x	< 2.88E-01 +/- 2.17E-02	< 1.30E-05 +/- 9.76E-07
U-233	< 3.08E+04 +/- 2.48E+03	< 1.39E+00 +/- 1.12E-01
U-235	< 7.15E-01 +/- 9.04E-02	< 3.22E-05 +/- 4.07E-06
Np-237	9.46E+00 +/- 5.75E-01	4.26E-04 +/- 2.59E-05
Pu-238	2.36E+03 +/- 1.36E+03	1.07E-01 +/- 6.10E-02
U-238	4.39E+00 +/- 1.25E+00	1.98E-04 +/- 5.65E-05
Pu-239	5.33E+06 +/- 1.81E+05	2.40E+02 +/- 8.17E+00
Pu-239A	3.43E+06 +/- 1.32E+05	1.54E+02 +/- 5.96E+00
Am-241	1.44E+06 +/- 5.90E+04	6.50E+01 +/- 2.66E+00
Am-241D	1.49E+06 +/- 6.29E+04	6.73E+01 +/- 2.83E+00
Pu-241	1.12E+07 +/- 7.17E+05	5.03E+02 +/- 3.23E+01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

Np-237	1.34E-02	+/-	8.17E-04
Pu-238	1.38E-04	+/-	7.91E-05
U-238	1.31E+01	+/-	3.74E+00
Pu-239	8.58E+01	+/-	2.92E+00
Pu-239A	5.52E+01	+/-	2.13E+00
Am-241	4.21E-01	+/-	1.72E-02
Pu-241	1.08E-01	+/-	6.93E-03

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)					
Pulser	7.33E+02	+/-	2.00E+02	3.30E-02	+/-	9.02E-03		
SE-75	<	1.21E+00	+/-	1.35E-02	<	5.45E-05	+/-	6.06E-07
EU-152x	<	6.48E-01	+/-	1.36E-02	<	2.92E-05	+/-	6.11E-07
U-233	<	6.99E+04	+/-	1.77E+03	<	3.15E+00	+/-	7.95E-02
U-235	<	1.66E+00	+/-	4.30E-02	<	7.46E-05	+/-	1.94E-06
Np-237	7.66E+00	+/-	3.96E-01	3.45E-04	+/-	1.78E-05		
Pu-238	<	1.22E+05	+/-	2.88E+03	<	5.52E+00	+/-	1.30E-01
U-238	<	1.55E+01	+/-	2.55E-01	<	6.99E-04	+/-	1.15E-05
Pu-239	4.28E+06	+/-	8.51E+04	1.93E+02	+/-	3.83E+00		
Pu-239A	1.23E+06	+/-	3.47E+04	5.55E+01	+/-	1.56E+00		
Am-241	1.20E+06	+/-	3.73E+04	5.39E+01	+/-	1.68E+00		
Am-241D	1.25E+06	+/-	4.34E+04	5.63E+01	+/-	1.96E+00		
Pu-241	4.80E+06	+/-	2.02E+05	2.16E+02	+/-	9.09E+00		

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

Np-237	1.09E-02	+/-	5.62E-04
Pu-239	6.90E+01	+/-	1.37E+00
Pu-239A	1.98E+01	+/-	5.58E-01
Am-241	3.49E-01	+/-	1.09E-02
Pu-241	4.64E-02	+/-	1.95E-03

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.991 +/- 70.6886
Matrix Longitudinal Ratio: 0.694 +/- 0.0235

Source Vertical Ratio: 0.880 +/- 0.4420
Matrix Vertical Ratio: 0.856 +/- 0.0163

NUDS could not find the transmission peak in one radial segment.

□

Radioassay Data Sheet

Procedure ID & Rev: WCP-55 03/07/2002

Wed Dec 19 11:01:01 2007
Software Version: GWAS v2.3bGEN

Drum ID	:	LL85001764	Gross Weight (kg)	:	66.0
Sequence Number	:	2499	Fill Height (%)	:	100.0
Assay Date	:	12/12/07 15:10:59	Density (g/cc)	:	0.20
Batch Number	:		Net Weight (kg)	:	42.20
Site ID	:		Waste Matrix Code	:	
			TRUCON	:	

		Errors at 1.00 Sigma
TRU Alpha Activity Concentration:	2.12e-05	+/- 2.70e-06 Ci/g
Total Pu-239 Equiv Activity:	9.15e-01	+/- 1.14e-01 Ci
Total Pu-239 Fissile Gram Equiv:	2.26e+01	+/- 3.17e+00 g
Decay Heat:	2.87e-02	+/- 3.61e-03 W
Total Pu Mass:	9.39e+00	+/- 1.69e+00 g
TMU:		19.20%
Waste Classification:		TRU

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
------------------	---------------------	-------------------------------

Pu-238	2.44e-02	3.89e+00
Pu-239	9.36e+01	8.87e-02
Pu-240	6.22e+00	1.33e+00
Pu-241	1.28e-01	1.50e+00
Pu-242	3.22e-02	1.00e+01
Am-241	4.85e-01	8.13e-01
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	7.98e+01	2.50e+00

Activity Errors

Isotope	1.00 Sigma Mass	Alpha Activity/ Error/Isotope	1.00 Sigma Isotope	Alpha Activity/ Error/Isotope	MDA
Isotope	(g)	Mass	(Ci)	(Ci)	(g)
Pu-238	2.29e-03	4.48e-04	3.92e-02	7.67e-03	8.46e-04
Pu-239	8.79e+00	1.69e+00	5.45e-01	1.05e-01	1.37e-01
Pu-240	5.84e-01	1.12e-01	1.33e-01	2.55e-02	0.00e+00
Pu-241	1.20e-02	2.32e-03	1.25e+00	2.40e-01	8.47e-04
Pu-242	3.02e-03	6.54e-04	1.19e-05	2.57e-06	0.00e+00
Am-241	5.18e-02	1.06e-02	1.77e-01	3.64e-02	8.47e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	2.62e-02	4.97e-03	1.84e-05	3.50e-06	3.71e-04
U-235	1.37e+01	2.68e+00	2.97e-05	5.79e-06	1.78e-01
U-238	7.07e+02	1.40e+02	2.37e-04	4.71e-05	3.08e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	1.00e+00
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Reviewer Signature

Date

12-19-07

Date

Software Version: GWAS v2.3bGEN
Counter Number: SGS
Data Review for Container: LL85001764
Item Description Code: \Count Type: DEBRIS
Sequence Number: 2499
Assayed on: 12/12/07 15:10:59
Report Generated: 12/19/07 11:00:46
AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

REVIEW Pu-240 Wt Pct -2 Sigma error <6.05> greater than <5.87> Review MGA R
Pu-240 Wt Pct error <1.33> is within limits
Pu-238 Wt Pct error <3.89> is within limits
QFIT <1.14> is within limits

OK

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.203> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <1.02e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <1.43> is acceptable in Segment 1
Pulser value <0.99> is within range in Segment 1
DEAD TIME percentage <1.34> is acceptable in Segment 2
Pulser value <0.99> is within range in Segment 2
DEAD TIME percentage <1.07> is acceptable in Segment 3
Pulser value <1.00> is within range in Segment 3
DEAD TIME percentage <0.97> is acceptable in Segment 4
Pulser value <1.00> is within range in Segment 4
DEAD TIME percentage <0.91> is acceptable in Segment 5
Pulser value <0.99> is within range in Segment 5
DEAD TIME percentage <1.01> is acceptable in Segment 6
Pulser value <0.99> is within range in Segment 6
DEAD TIME percentage <1.56> is acceptable in Segment 7
Pulser value <0.99> is within range in Segment 7
DEAD TIME percentage <2.64> is acceptable in Segment 8
Pulser value <0.99> is within range in Segment 8
DEAD TIME percentage <3.42> is acceptable in Segment 9
Pulser value <1.00> is within range in Segment 9
DEAD TIME percentage <3.50> is acceptable in Segment 10
Pulser value <0.99> is within range in Segment 10
DEAD TIME percentage <3.35> is acceptable in Segment 11
Pulser value <0.99> is within range in Segment 11
DEAD TIME percentage <2.88> is acceptable in Segment 12
Pulser value <0.99> is within range in Segment 12
DEAD TIME percentage <2.69> is acceptable in Segment 13
Pulser value <1.00> is within range in Segment 13
DEAD TIME percentage <2.89> is acceptable in Segment 14
Pulser value <1.00> is within range in Segment 14
DEAD TIME percentage <2.13> is acceptable in Segment 15
Pulser value <0.99> is within range in Segment 15
DEAD TIME percentage <1.17> is acceptable in Segment 16
Pulser value <1.00> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
Transmission results are acceptable in Segment 2
Transmission results are acceptable in Segment 3
Transmission results are acceptable in Segment 4
Transmission results are acceptable in Segment 5
Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

All energy peaks within <3.00e+00> RCHISQ limit

Section 7 - FGE MASS REVIEW

FGE Mass <25.72> is within limits

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

REVIEW Am-241 ratio <169.63> is below lower limit <200.00> **OK**
 Np-237 ratio <335.82> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <8.79> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Cs-137 Z Value <0.95> is less than limit <1.96> **OK**

Independent Reviewer: Robert J. Hasheth Date: 12-19-07

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS
Data Review for Container: LL85001764
Item Description Code:
Sequence Number: 2499
Assayed on: 12/12/07 15:10:59
AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA Pu-240 Wt Pct -2 Sigma error is greater than upper limit.	OK
SECTION 9 - IDC COUNT TYPE IDC is not available.	N/A
SECTION 10 - AM-241 & NP-237 INTERFERENCE TEST Possible Am-241 interference with 129 KeV peak.	OK . Checked .

Technical Reviewer: Robert Harlett Jr Date: 12-19-07

***** M G A R E P O R T *****

Report generated on:

12-19-07 10:51:17 AM

MGA version: MGA V9.5 CI

Spectrum ID: 11202499.CNF Sens : 30.0% LT: 55.4 Mins DT: 2.32
Measurement date: 12-12-07 Declared date: 12-12-07

Sample ID: LL85001764 Detector: Total counts: 2.534E+06

Pu g/cm² = 0.1033 Cd g/cm² = 1.8000 FWHM at 122 keV = 607 eV
QFIT = 1.14 FWHM at 208 keV = 773 eV
NQFIT = 1.01

Isotope	Relative to Pu-239	%*		Relative to Pu-241	%*		Isotope analysis at			
		Meas. date	Decl. date				% weight	% Err	% weight	% Err
Pu-238	0.000260	3.9	3.8	0.1898	3.9	0.02436	3.89	0.02436	3.89	
Pu-239	1.000000	0.0	0.7	729.3757	1.5	93.59712	0.09	93.59712	0.09	
Pu-240	0.066434	1.4	1.3	48.4553	1.9	6.21802	1.33	6.21802	1.33	
Pu-241	0.001371	1.5	1.4	1.0000	0.0	0.12832	1.50	0.12832	1.50	
Pu-242	(New alg.)			0.2506 (10)		0.03216 (10)		0.03216 (10)		
Am-241	0.005184	0.8	0.6	3.7812	1.5	0.48522	0.81	0.48522	0.81	
U-235	0.852512	2.4	2.5			79.79266	2.50	79.79266	2.50	

Pu-240 effective (meas. date) = 6.333 +/- 1.45%
Am-241 separated about 32.418 +/- 0.258 years ago
Am/Pu-241 weight ratio = 3.78118 +/- 1.48%

Messages :

Lead x-rays detected.
Pu-241/Pu-239 efficiency changed in MGACAL by 1%.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Gamma Waste Assay

Sample Information

File Name: C:\WAS\DATA\2500\11102499.S11
Sample ID: LL85001764 Count Sequence Number: 2499
Assay Start: 12-12-07 3:11:00 PM
Description 1:
Description 2:
Location:
Comment:
Waste Type:
Weight: Gross: 66000.0 g Net: 42200.0 g
Density: 0.203 g /ml
Container Type: 55 Gal Galv 23.8
Container: Volume: 208000. ml Full: 100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: 55 Gal Galv 23.8
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps
Geometric Correction Factor(SWCONTGCF): 0.760
Date of efficiency calibration approval: 8-27-2003 2:05:34 PM
Mu Factors response file: Lucite response
Transmission Calib. Time: 12-10-2007 3:51:07 PM 28849

Reviewed by:



Date: 12-19-07

Segment Results

Segment: 1

Detector: DET01 (# 1)

Position: 1

Elapsed Live Time: 113.35 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.139 +/- 0.0061
SE-75	264.65	0.000 +/- 0.0000	0.193 +/- 0.0043
SE-75	279.53	0.000 +/- 0.0000	0.197 +/- 0.0049
SE-75	400.65	0.000 +/- 0.0000	0.230 +/- 0.0065

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.78	4.90E-01 +/- 1.64E-01	3.12E+00	3.89E-10 +/- 2.80E-09
2	49.21	4.90E+00 +/- 5.35E-01	2.40E+00	6.83E-07 +/- 2.07E-06
3	60.17	2.61E+01 +/- 7.22E-01	2.24E+00	6.34E-06 +/- 1.17E-05
4	99.17	4.46E+00 +/- 5.27E-01	2.02E+00	1.50E-04 +/- 4.19E-05
5	111.68	2.35E+00 +/- 4.98E-01	1.98E+00	2.19E-04 +/- 2.67E-05
6	129.29	3.58E+00 +/- 4.02E-01	1.95E+00	3.01E-04 +/- 2.13E-05
7	144.55	3.83E+00 +/- 4.90E-01	1.92E+00	3.49E-04 +/- 3.77E-05
8	164.14	2.62E+00 +/- 3.50E-01	1.88E+00	3.82E-04 +/- 5.07E-05
9	185.71	2.94E+01 +/- 7.35E-01	1.85E+00	3.91E-04 +/- 5.22E-05
M 10	206.00	2.13E+00 +/- 2.93E-01	1.82E+00	3.82E-04 +/- 4.64E-05
m 11	208.75	7.29E-01 +/- 1.37E-01	1.82E+00	3.80E-04 +/- 4.53E-05
12	264.66	3.44E-01 +/- 2.07E-01	1.75E+00	3.24E-04 +/- 2.30E-05
13	311.90	1.05E+00 +/- 1.99E-01	1.72E+00	2.76E-04 +/- 1.41E-05
14	333.42	2.84E-01 +/- 1.77E-01	1.70E+00	2.57E-04 +/- 1.33E-05
15	345.94	3.05E-01 +/- 1.61E-01	1.69E+00	2.47E-04 +/- 1.34E-05
16	375.67	9.59E-01 +/- 1.99E-01	1.68E+00	2.25E-04 +/- 1.39E-05
17	413.70	1.05E+00 +/- 1.92E-01	1.65E+00	2.03E-04 +/- 1.44E-05
18	662.42	2.45E-01 +/- 1.12E-01	1.50E+00	1.27E-04 +/- 8.85E-06
19	743.80	4.11E-01 +/- 1.06E-01	1.46E+00	1.15E-04 +/- 7.11E-06
20	767.34	1.01E+00 +/- 1.33E-01	1.46E+00	1.12E-04 +/- 6.73E-06
21	786.85	2.96E-01 +/- 1.21E-01	1.45E+00	1.10E-04 +/- 6.45E-06
22	964.13	1.49E-01 +/- 6.21E-02	1.40E+00	9.44E-05 +/- 5.09E-06
23	1001.03	3.50E+00 +/- 1.88E-01	1.39E+00	9.18E-05 +/- 4.92E-06
24	2236.00	1.00E+02 +/- 1.50E+00	1.26E+00	3.40E-05 +/- 2.15E-05

Segment: 2

Detector: DET01 (# 1)

Position: 2

Elapsed Live Time: 113.46 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.037 +/- 0.0034
SE-75	264.65	0.000 +/- 0.0000	0.078 +/- 0.0020
SE-75	279.53	0.000 +/- 0.0000	0.083 +/- 0.0025
SE-75	400.65	0.000 +/- 0.0000	0.116 +/- 0.0039

Peak No.	PEAK ANALYSIS RESULTS			
	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.74	1.14E+00 +/- 2.07E-01	4.10E+00	1.81E-05 +/- 1.14E-04
2	49.35	5.12E+00 +/- 5.51E-01	3.63E+00	8.04E-05 +/- 2.12E-04
3	60.18	2.86E+01 +/- 7.63E-01	3.33E+00	1.33E-04 +/- 2.14E-04
4	95.26	9.85E-01 +/- 4.86E-01	2.93E+00	2.94E-04 +/- 9.02E-05
5	99.24	2.40E+00 +/- 5.73E-01	2.90E+00	3.09E-04 +/- 7.56E-05
6	111.76	1.58E+00 +/- 5.03E-01	2.84E+00	3.48E-04 +/- 3.76E-05
7	129.29	4.39E+00 +/- 4.10E-01	2.76E+00	3.88E-04 +/- 2.47E-05
8	144.52	4.86E+00 +/- 5.05E-01	2.69E+00	4.10E-04 +/- 3.90E-05
9	164.16	1.92E+00 +/- 3.77E-01	2.60E+00	4.26E-04 +/- 4.97E-05
10	185.71	2.95E+01 +/- 7.39E-01	2.52E+00	4.30E-04 +/- 5.06E-05
M 11	206.02	2.74E+00 +/- 2.91E-01	2.44E+00	4.26E-04 +/- 4.57E-05
m 12	208.63	9.49E-01 +/- 1.47E-01	2.44E+00	4.25E-04 +/- 4.49E-05
13	311.90	9.42E-01 +/- 1.78E-01	2.17E+00	3.58E-04 +/- 1.69E-05
14	345.64	2.43E-01 +/- 1.64E-01	2.12E+00	3.34E-04 +/- 1.66E-05
15	375.75	7.87E-01 +/- 1.92E-01	2.07E+00	3.13E-04 +/- 1.75E-05
16	393.77	3.26E-01 +/- 1.42E-01	2.04E+00	3.01E-04 +/- 1.81E-05
17	413.70	8.82E-01 +/- 1.63E-01	2.02E+00	2.89E-04 +/- 1.85E-05
18	512.25	3.43E-01 +/- 1.53E-01	1.90E+00	2.38E-04 +/- 1.72E-05
19	722.01	1.32E-01 +/- 8.19E-02	1.73E+00	1.71E-04 +/- 9.64E-06
20	743.62	1.96E-01 +/- 7.72E-02	1.72E+00	1.66E-04 +/- 9.07E-06
21	767.19	6.72E-01 +/- 1.13E-01	1.70E+00	1.61E-04 +/- 8.52E-06
22	867.39	9.47E-02 +/- 7.92E-02	1.65E+00	1.44E-04 +/- 6.91E-06
23	1001.03	1.53E+00 +/- 1.26E-01	1.59E+00	1.28E-04 +/- 5.83E-06
24	1085.91	3.98E-02 +/- 3.04E-02	1.56E+00	1.20E-04 +/- 5.31E-06
25	2236.00	1.00E+02 +/- 1.50E+00	1.39E+00	9.73E-05 +/- 5.41E-05

Segment: 3

Detector: DET01 (# 1)

Position: 3

Elapsed Live Time: 113.77 sec Elapsed Real Time: 115.00 sec

		TRANSMISSION RESULTS	
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.045 +/- 0.0038
SE-75	264.65	0.000 +/- 0.0000	0.090 +/- 0.0022
SE-75	279.53	0.000 +/- 0.0000	0.094 +/- 0.0026
SE-75	400.65	0.000 +/- 0.0000	0.127 +/- 0.0041

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	49.41	3.86E+00 +/- 5.21E-01	3.43E+00	3.68E-05 +/- 1.83E-05
2	60.18	1.83E+01 +/- 6.13E-01	3.15E+00	8.08E-05 +/- 2.79E-05
3	95.33	7.14E-01 +/- 4.39E-01	2.78E+00	2.76E-04 +/- 3.17E-05
4	99.26	1.05E+00 +/- 5.08E-01	2.76E+00	2.96E-04 +/- 3.04E-05
5	103.73	6.84E-01 +/- 3.90E-01	2.73E+00	3.18E-04 +/- 2.88E-05
6	111.27	7.26E-01 +/- 4.31E-01	2.70E+00	3.53E-04 +/- 2.61E-05
7	129.29	3.87E+00 +/- 3.99E-01	2.62E+00	4.18E-04 +/- 2.23E-05
8	144.49	4.55E+00 +/- 4.64E-01	2.56E+00	4.55E-04 +/- 2.22E-05
9	164.09	1.24E+00 +/- 3.21E-01	2.49E+00	4.84E-04 +/- 2.41E-05
10	185.71	2.31E+01 +/- 5.75E-01	2.41E+00	4.95E-04 +/- 2.57E-05
M 11	206.08	1.90E+00 +/- 2.37E-01	2.34E+00	4.93E-04 +/- 2.59E-05
m 12	208.86	8.64E-01 +/- 1.34E-01	2.33E+00	4.91E-04 +/- 2.59E-05
13	311.90	8.74E-01 +/- 1.61E-01	2.10E+00	4.04E-04 +/- 1.79E-05
14	333.61	4.18E-01 +/- 1.27E-01	2.07E+00	3.84E-04 +/- 1.63E-05
15	345.52	2.04E-01 +/- 9.31E-02	2.05E+00	3.73E-04 +/- 1.56E-05
16	375.71	5.96E-01 +/- 1.52E-01	2.01E+00	3.46E-04 +/- 1.41E-05
M 17	381.05	1.37E-01 +/- 6.00E-02	2.01E+00	3.42E-04 +/- 1.38E-05
m 18	383.55	1.42E-01 +/- 5.90E-02	2.00E+00	3.40E-04 +/- 1.37E-05
19	393.75	2.91E-01 +/- 9.61E-02	1.99E+00	3.31E-04 +/- 1.34E-05
20	413.70	7.29E-01 +/- 1.05E-01	1.96E+00	3.16E-04 +/- 1.28E-05
21	584.14	1.49E-01 +/- 6.39E-02	1.79E+00	2.22E-04 +/- 1.05E-05
22	662.42	7.96E-02 +/- 5.22E-02	1.73E+00	1.95E-04 +/- 9.62E-06
23	1001.03	1.05E-01 +/- 3.97E-02	1.56E+00	1.35E-04 +/- 5.37E-06
24	2236.00	1.00E+02 +/- 1.50E+00	1.37E+00	1.32E-04 +/- 3.24E-05

Segment: 4 Detector: DET01 (# 1) Position: 4

Elapsed Live Time: 113.88 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.039 +/- 0.0033
SE-75	264.65	0.000 +/- 0.0000	0.070 +/- 0.0017
SE-75	279.53	0.000 +/- 0.0000	0.073 +/- 0.0022
SE-75	400.65	0.000 +/- 0.0000	0.105 +/- 0.0035

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	49.14	4.47E+00 +/- 5.05E-01	3.59E+00	9.18E-06 +/- 2.40E-05
2	60.16	1.52E+01 +/- 5.73E-01	3.28E+00	3.62E-05 +/- 5.76E-05
3	99.35	1.63E+00 +/- 4.71E-01	2.87E+00	2.64E-04 +/- 6.34E-05
4	111.74	9.14E-01 +/- 4.43E-01	2.80E+00	3.35E-04 +/- 3.61E-05
5	129.29	2.99E+00 +/- 3.31E-01	2.73E+00	4.12E-04 +/- 2.61E-05
6	144.51	2.62E+00 +/- 4.15E-01	2.67E+00	4.55E-04 +/- 4.28E-05
7	164.22	1.71E+00 +/- 3.83E-01	2.60E+00	4.83E-04 +/- 5.59E-05
8	185.71	1.51E+01 +/- 4.55E-01	2.53E+00	4.90E-04 +/- 5.73E-05
M 9	202.82	4.49E-01 +/- 9.95E-02	2.48E+00	4.84E-04 +/- 5.27E-05
m 10	206.07	1.33E+00 +/- 1.77E-01	2.48E+00	4.82E-04 +/- 5.15E-05
m 11	208.85	7.17E-01 +/- 1.18E-01	2.47E+00	4.80E-04 +/- 5.04E-05
12	300.10	2.46E-01 +/- 1.38E-01	2.26E+00	3.89E-04 +/- 1.89E-05
13	311.90	5.71E-01 +/- 1.35E-01	2.24E+00	3.77E-04 +/- 1.75E-05
M 14	333.61	3.89E-01 +/- 1.05E-01	2.20E+00	3.57E-04 +/- 1.65E-05
m 15	336.94	1.68E-01 +/- 6.33E-02	2.20E+00	3.54E-04 +/- 1.65E-05
16	345.76	2.56E-01 +/- 9.34E-02	2.18E+00	3.46E-04 +/- 1.65E-05
17	375.80	4.91E-01 +/- 1.24E-01	2.13E+00	3.21E-04 +/- 1.71E-05
18	393.29	3.54E-01 +/- 8.69E-02	2.10E+00	3.08E-04 +/- 1.75E-05
19	413.70	6.01E-01 +/- 9.41E-02	2.07E+00	2.94E-04 +/- 1.78E-05
20	511.42	1.71E-01 +/- 6.82E-02	1.95E+00	2.41E-04 +/- 1.65E-05
21	662.42	7.87E-02 +/- 4.12E-02	1.82E+00	1.90E-04 +/- 1.13E-05
22	2236.00	1.00E+02 +/- 1.50E+00	1.41E+00	7.00E-05 +/- 3.84E-05

Segment: 5 Detector: DET01 (# 1) Position: 5

Elapsed Live Time: 113.95 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.020 +/- 0.0023
SE-75	264.65	0.000 +/- 0.0000	0.050 +/- 0.0013
SE-75	279.53	0.000 +/- 0.0000	0.055 +/- 0.0018
SE-75	400.65	0.000 +/- 0.0000	0.080 +/- 0.0029

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.83	5.69E-01 +/- 1.39E-01	4.10E+00	2.56E-07 +/- 1.71E-06
2	49.06	4.00E+00 +/- 5.28E-01	4.10E+00	1.39E-05 +/- 3.94E-05
3	60.15	1.43E+01 +/- 5.74E-01	3.87E+00	4.79E-05 +/- 8.22E-05
4	99.15	1.86E+00 +/- 4.19E-01	3.35E+00	2.76E-04 +/- 7.16E-05
5	116.54	6.06E-01 +/- 2.70E-01	3.24E+00	3.62E-04 +/- 2.85E-05
6	129.29	2.21E+00 +/- 3.33E-01	3.17E+00	4.07E-04 +/- 2.65E-05
7	144.59	1.74E+00 +/- 2.89E-01	3.09E+00	4.42E-04 +/- 4.46E-05
8	164.06	3.73E-01 +/- 1.79E-01	2.97E+00	4.64E-04 +/- 5.76E-05
9	185.71	8.38E+00 +/- 3.46E-01	2.86E+00	4.66E-04 +/- 5.86E-05
M 10	206.10	7.13E-01 +/- 1.44E-01	2.77E+00	4.57E-04 +/- 5.22E-05
m 11	208.75	5.97E-01 +/- 1.30E-01	2.75E+00	4.56E-04 +/- 5.12E-05
12	311.90	3.09E-01 +/- 1.11E-01	2.41E+00	3.62E-04 +/- 1.74E-05
13	333.51	3.54E-01 +/- 1.14E-01	2.36E+00	3.43E-04 +/- 1.67E-05
14	345.72	3.79E-01 +/- 9.25E-02	2.34E+00	3.33E-04 +/- 1.69E-05
15	375.80	6.28E-01 +/- 1.38E-01	2.29E+00	3.11E-04 +/- 1.79E-05
16	393.49	2.28E-01 +/- 6.80E-02	2.26E+00	2.99E-04 +/- 1.85E-05
17	413.70	6.74E-01 +/- 9.99E-02	2.23E+00	2.86E-04 +/- 1.90E-05
18	443.98	6.53E-02 +/- 3.15E-02	2.18E+00	2.69E-04 +/- 1.92E-05
19	559.33	1.34E-01 +/- 5.97E-02	2.03E+00	2.20E-04 +/- 1.62E-05
20	778.90	8.70E-03 +/- 1.96E-02	1.84E+00	1.66E-04 +/- 8.62E-06
21	964.13	2.61E-02 +/- 1.51E-02	1.73E+00	1.39E-04 +/- 6.40E-06
22	1408.01	3.48E-02 +/- 1.74E-02	1.58E+00	1.00E-04 +/- 6.78E-06
23	2236.00	1.00E+02 +/- 1.50E+00	1.46E+00	5.76E-05 +/- 3.29E-05

Segment: 6

Detector: DET01 (# 1)

Position: 6

Elapsed Live Time: 113.84 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.031 +/- 0.0031
SE-75	264.65	0.000 +/- 0.0000	0.064 +/- 0.0016
SE-75	279.53	0.000 +/- 0.0000	0.070 +/- 0.0021
SE-75	400.65	0.000 +/- 0.0000	0.097 +/- 0.0034

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.87	4.75E-01 +/- 1.57E-01	4.10E+00	4.43E-07 +/- 2.81E-06
2	49.33	4.44E+00 +/- 6.12E-01	3.80E+00	1.98E-05 +/- 5.28E-05
3	60.16	2.42E+01 +/- 6.57E-01	3.48E+00	6.08E-05 +/- 9.94E-05
4	103.91	1.19E+00 +/- 3.58E-01	3.00E+00	3.31E-04 +/- 6.13E-05
5	129.29	3.10E+00 +/- 3.46E-01	2.88E+00	4.31E-04 +/- 2.73E-05
6	144.58	7.80E-01 +/- 3.28E-01	2.81E+00	4.63E-04 +/- 4.47E-05
7	185.71	5.63E+00 +/- 3.44E-01	2.64E+00	4.84E-04 +/- 5.81E-05
8	208.75	6.85E-01 +/- 2.15E-01	2.55E+00	4.72E-04 +/- 5.09E-05
9	311.90	3.77E-01 +/- 1.14E-01	2.27E+00	3.82E-04 +/- 1.81E-05
10	333.13	3.58E-01 +/- 1.23E-01	2.24E+00	3.65E-04 +/- 1.73E-05
11	345.88	1.27E-01 +/- 7.68E-02	2.22E+00	3.55E-04 +/- 1.74E-05
12	375.76	6.78E-01 +/- 1.28E-01	2.17E+00	3.33E-04 +/- 1.84E-05
13	383.61	3.12E-01 +/- 9.32E-02	2.16E+00	3.28E-04 +/- 1.87E-05
14	393.57	4.24E-01 +/- 8.79E-02	2.15E+00	3.22E-04 +/- 1.90E-05
15	413.70	8.33E-01 +/- 9.55E-02	2.12E+00	3.09E-04 +/- 1.95E-05
16	452.04	9.00E-02 +/- 4.32E-02	2.07E+00	2.88E-04 +/- 1.97E-05
17	662.42	4.94E-02 +/- 2.63E-02	1.85E+00	2.10E-04 +/- 1.26E-05
18	867.39	2.32E-02 +/- 1.75E-02	1.71E+00	1.66E-04 +/- 7.45E-06
19	964.13	4.42E-02 +/- 3.31E-02	1.67E+00	1.51E-04 +/- 6.52E-06
20	1112.12	1.74E-02 +/- 1.23E-02	1.61E+00	1.31E-04 +/- 5.52E-06
21	1408.01	8.69E-03 +/- 1.96E-02	1.53E+00	9.88E-05 +/- 6.79E-06
22	2236.00	1.00E+02 +/- 1.50E+00	1.43E+00	4.34E-05 +/- 2.42E-05

Segment: 7 Detector: DET01 (# 1) Position: 7

Elapsed Live Time: 113.21 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.113 +/- 0.0055
SE-75	264.65	0.000 +/- 0.0000	0.176 +/- 0.0040
SE-75	279.53	0.000 +/- 0.0000	0.184 +/- 0.0046
SE-75	400.65	0.000 +/- 0.0000	0.231 +/- 0.0064

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.29	1.02E+00 +/- 2.00E-01	3.35E+00	5.69E-09 +/- 3.21E-08
2	50.07	1.03E+01 +/- 1.04E+00	2.56E+00	2.89E-06 +/- 6.80E-06
3	60.17	1.58E+02 +/- 2.36E+00	2.40E+00	1.60E-05 +/- 2.39E-05
4	99.35	9.26E+00 +/- 6.07E-01	2.15E+00	2.43E-04 +/- 5.52E-05
5	115.61	1.62E+00 +/- 4.49E-01	2.10E+00	3.62E-04 +/- 2.91E-05
M 6	126.00	2.51E+00 +/- 2.31E-01	2.07E+00	4.24E-04 +/- 2.46E-05
m 7	130.01	8.97E+00 +/- 4.96E-01	2.06E+00	4.45E-04 +/- 2.77E-05
M 8	161.58	7.29E-01 +/- 2.11E-01	1.99E+00	5.43E-04 +/- 5.77E-05
m 9	164.93	6.34E-01 +/- 1.92E-01	1.98E+00	5.48E-04 +/- 5.91E-05
10	185.71	2.35E+00 +/- 3.81E-01	1.94E+00	5.59E-04 +/- 6.06E-05
11	208.68	2.18E+00 +/- 3.21E-01	1.89E+00	5.47E-04 +/- 5.32E-05
12	264.66	2.61E-01 +/- 1.52E-01	1.80E+00	4.78E-04 +/- 2.86E-05
13	300.10	3.82E-01 +/- 1.30E-01	1.75E+00	4.31E-04 +/- 1.99E-05
14	311.90	1.33E+00 +/- 1.90E-01	1.74E+00	4.17E-04 +/- 1.86E-05
15	333.46	1.33E+00 +/- 1.86E-01	1.72E+00	3.91E-04 +/- 1.76E-05
16	345.66	5.50E-01 +/- 1.60E-01	1.71E+00	3.78E-04 +/- 1.76E-05
17	375.83	1.30E+00 +/- 2.23E-01	1.68E+00	3.48E-04 +/- 1.82E-05
M 18	380.91	4.03E-01 +/- 9.42E-02	1.68E+00	3.44E-04 +/- 1.83E-05
m 19	383.45	3.58E-01 +/- 8.41E-02	1.67E+00	3.42E-04 +/- 1.84E-05
20	393.68	8.23E-01 +/- 1.13E-01	1.66E+00	3.33E-04 +/- 1.86E-05
21	413.70	1.82E+00 +/- 1.41E-01	1.65E+00	3.17E-04 +/- 1.88E-05
22	452.32	2.28E-01 +/- 8.07E-02	1.62E+00	2.90E-04 +/- 1.86E-05
23	662.42	1.26E-01 +/- 5.85E-02	1.50E+00	2.03E-04 +/- 1.17E-05
24	722.01	1.57E-01 +/- 3.71E-02	1.47E+00	1.89E-04 +/- 9.99E-06
25	1001.03	2.73E-02 +/- 2.04E-02	1.39E+00	1.45E-04 +/- 6.33E-06
26	1112.12	4.37E-02 +/- 2.34E-02	1.36E+00	1.32E-04 +/- 5.60E-06
27	1408.01	8.74E-03 +/- 8.74E-03	1.32E+00	1.05E-04 +/- 7.16E-06
28	2236.00	1.00E+02 +/- 1.50E+00	1.26E+00	5.07E-05 +/- 2.69E-05

Segment: 8

Detector: DET01 (# 1)

Position: 8

Elapsed Live Time: 111.96 sec Elapsed Real Time: 115.00 sec

		TRANSMISSION RESULTS	
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.232 +/- 0.0086
SE-75	264.65	0.000 +/- 0.0000	0.329 +/- 0.0072
SE-75	279.53	0.000 +/- 0.0000	0.337 +/- 0.0079
SE-75	400.65	0.000 +/- 0.0000	0.388 +/- 0.0100

PEAK ANALYSIS RESULTS		
Peak No.	Energy (keV)	Net Peak Count Rate (Cps)
1	32.07	1.46E+00 +/- 2.88E-01
2	50.09	1.61E+01 +/- 1.23E+00
3	60.17	4.08E+02 +/- 5.34E+00
4	99.34	2.00E+01 +/- 8.81E-01
5	103.73	1.87E+01 +/- 7.06E-01
6	115.41	2.83E+00 +/- 6.29E-01
M 7	125.99	5.06E+00 +/- 3.16E-01
m 8	129.98	2.19E+01 +/- 7.70E-01
9	148.57	2.05E+00 +/- 3.76E-01
10	161.70	6.08E-01 +/- 3.46E-01
11	172.12	9.84E-01 +/- 3.75E-01
12	185.71	2.08E+00 +/- 3.09E-01
13	196.32	5.24E-01 +/- 3.09E-01
14	204.22	2.09E+00 +/- 2.62E-01
15	208.70	5.39E+00 +/- 4.76E-01
M 16	263.13	4.29E-01 +/- 1.54E-01
m 17	268.18	4.44E-01 +/- 1.57E-01
M 18	297.69	2.21E-01 +/- 9.31E-02
m 19	300.94	4.66E-01 +/- 1.46E-01
20	311.90	3.02E+00 +/- 2.31E-01
M 21	333.44	1.91E+00 +/- 2.20E-01
m 22	336.38	6.19E-01 +/- 1.12E-01
23	345.68	1.30E+00 +/- 2.12E-01
24	368.79	9.45E-01 +/- 1.81E-01
25	375.79	3.17E+00 +/- 3.09E-01
M 26	380.91	9.32E-01 +/- 1.45E-01
m 27	383.39	6.21E-01 +/- 1.06E-01
28	393.62	1.31E+00 +/- 1.59E-01
29	413.70	3.98E+00 +/- 2.15E-01
30	423.17	3.11E-01 +/- 8.36E-02
31	452.29	5.20E-01 +/- 8.86E-02
32	511.99	1.20E-01 +/- 6.39E-02
33	662.42	3.39E-01 +/- 7.86E-02
34	722.01	1.02E-01 +/- 4.44E-02
35	867.39	1.77E-02 +/- 1.26E-02
36	1085.91	5.32E-02 +/- 2.17E-02
37	2236.00	1.00E+02 +/- 1.51E+00

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.07	1.46E+00 +/- 2.88E-01	2.45E+00	7.68E-06 +/- 7.46E-06
2	50.09	1.61E+01 +/- 1.23E+00	1.96E+00	5.97E-05 +/- 2.93E-05
3	60.17	4.08E+02 +/- 5.34E+00	1.87E+00	1.10E-04 +/- 3.84E-05
4	99.34	2.00E+01 +/- 8.81E-01	1.71E+00	3.24E-04 +/- 3.31E-05
5	103.73	1.87E+01 +/- 7.06E-01	1.71E+00	3.44E-04 +/- 3.09E-05
6	115.41	2.83E+00 +/- 6.29E-01	1.69E+00	3.88E-04 +/- 2.58E-05
M 7	125.99	5.06E+00 +/- 3.16E-01	1.67E+00	4.19E-04 +/- 2.31E-05
m 8	129.98	2.19E+01 +/- 7.70E-01	1.66E+00	4.29E-04 +/- 2.26E-05
9	148.57	2.05E+00 +/- 3.76E-01	1.63E+00	4.62E-04 +/- 2.28E-05
10	161.70	6.08E-01 +/- 3.46E-01	1.61E+00	4.75E-04 +/- 2.42E-05
11	172.12	9.84E-01 +/- 3.75E-01	1.60E+00	4.80E-04 +/- 2.51E-05
12	185.71	2.08E+00 +/- 3.09E-01	1.58E+00	4.81E-04 +/- 2.59E-05
13	196.32	5.24E-01 +/- 3.09E-01	1.56E+00	4.79E-04 +/- 2.62E-05
14	204.22	2.09E+00 +/- 2.62E-01	1.55E+00	4.76E-04 +/- 2.61E-05
15	208.70	5.39E+00 +/- 4.76E-01	1.55E+00	4.74E-04 +/- 2.60E-05
M 16	263.13	4.29E-01 +/- 1.54E-01	1.48E+00	4.33E-04 +/- 2.22E-05
m 17	268.18	4.44E-01 +/- 1.57E-01	1.48E+00	4.28E-04 +/- 2.17E-05
M 18	297.69	2.21E-01 +/- 9.31E-02	1.46E+00	4.01E-04 +/- 1.90E-05
m 19	300.94	4.66E-01 +/- 1.46E-01	1.46E+00	3.98E-04 +/- 1.88E-05
20	311.90	3.02E+00 +/- 2.31E-01	1.45E+00	3.88E-04 +/- 1.78E-05
M 21	333.44	1.91E+00 +/- 2.20E-01	1.44E+00	3.69E-04 +/- 1.62E-05
m 22	336.38	6.19E-01 +/- 1.12E-01	1.44E+00	3.67E-04 +/- 1.60E-05
23	345.68	1.30E+00 +/- 2.12E-01	1.43E+00	3.59E-04 +/- 1.54E-05
24	368.79	9.45E-01 +/- 1.81E-01	1.42E+00	3.40E-04 +/- 1.42E-05
25	375.79	3.17E+00 +/- 3.09E-01	1.42E+00	3.34E-04 +/- 1.38E-05
M 26	380.91	9.32E-01 +/- 1.45E-01	1.41E+00	3.30E-04 +/- 1.36E-05
m 27	383.39	6.21E-01 +/- 1.06E-01	1.41E+00	3.28E-04 +/- 1.35E-05
28	393.62	1.31E+00 +/- 1.59E-01	1.41E+00	3.21E-04 +/- 1.31E-05
29	413.70	3.98E+00 +/- 2.15E-01	1.40E+00	3.06E-04 +/- 1.25E-05
30	423.17	3.11E-01 +/- 8.36E-02	1.39E+00	3.00E-04 +/- 1.22E-05
31	452.29	5.20E-01 +/- 8.86E-02	1.38E+00	2.82E-04 +/- 1.16E-05
32	511.99	1.20E-01 +/- 6.39E-02	1.36E+00	2.49E-04 +/- 1.09E-05
33	662.42	3.39E-01 +/- 7.86E-02	1.31E+00	1.93E-04 +/- 9.41E-06
34	722.01	1.02E-01 +/- 4.44E-02	1.29E+00	1.78E-04 +/- 8.71E-06
35	867.39	1.77E-02 +/- 1.26E-02	1.26E+00	1.51E-04 +/- 6.88E-06
36	1085.91	5.32E-02 +/- 2.17E-02	1.23E+00	1.28E-04 +/- 4.75E-06
37	2236.00	1.00E+02 +/- 1.51E+00	1.16E+00	1.19E-04 +/- 2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 111.07 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.152 +/- 0.0064
SE-75	264.65	0.000 +/- 0.0000	0.277 +/- 0.0061
SE-75	279.53	0.000 +/- 0.0000	0.285 +/- 0.0068
SE-75	400.65	0.000 +/- 0.0000	0.346 +/- 0.0090

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.10	1.18E+00 +/- 2.24E-01	2.98E+00	6.41E-09 +/- 3.84E-08
2	50.18	1.86E+01 +/- 1.44E+00	2.30E+00	3.17E-06 +/- 7.77E-06
3	60.17	5.53E+02 +/- 7.09E+00	2.17E+00	1.65E-05 +/- 2.58E-05
4	99.36	2.49E+01 +/- 1.14E+00	1.96E+00	2.36E-04 +/- 5.58E-05
5	111.66	4.31E+00 +/- 7.14E-01	1.93E+00	3.22E-04 +/- 3.47E-05
6	115.45	1.45E+00 +/- 8.31E-01	1.92E+00	3.46E-04 +/- 2.89E-05
M 7	125.94	7.68E+00 +/- 3.82E-01	1.90E+00	4.04E-04 +/- 2.41E-05
m 8	129.99	3.23E+01 +/- 9.39E-01	1.89E+00	4.24E-04 +/- 2.73E-05
9	148.57	2.31E+00 +/- 5.02E-01	1.84E+00	4.88E-04 +/- 4.79E-05
10	161.46	5.42E-01 +/- 3.44E-01	1.80E+00	5.12E-04 +/- 5.67E-05
11	171.81	1.16E+00 +/- 3.65E-01	1.77E+00	5.22E-04 +/- 5.97E-05
12	185.71	1.28E+00 +/- 4.23E-01	1.73E+00	5.24E-04 +/- 5.91E-05
13	196.35	1.29E+00 +/- 4.08E-01	1.71E+00	5.20E-04 +/- 5.63E-05
14	204.20	3.04E+00 +/- 3.88E-01	1.69E+00	5.14E-04 +/- 5.34E-05
15	208.68	5.82E+00 +/- 5.94E-01	1.68E+00	5.11E-04 +/- 5.15E-05
16	255.83	4.69E-01 +/- 2.35E-01	1.58E+00	4.54E-04 +/- 3.04E-05
17	300.10	6.28E-01 +/- 2.61E-01	1.53E+00	3.97E-04 +/- 1.90E-05
18	311.90	5.05E+00 +/- 3.19E-01	1.52E+00	3.83E-04 +/- 1.78E-05
19	324.06	9.70E-01 +/- 2.12E-01	1.51E+00	3.69E-04 +/- 1.72E-05
M 20	333.44	3.08E+00 +/- 2.73E-01	1.51E+00	3.59E-04 +/- 1.71E-05
m 21	336.35	1.40E+00 +/- 1.60E-01	1.50E+00	3.56E-04 +/- 1.71E-05
22	345.68	1.95E+00 +/- 2.59E-01	1.50E+00	3.46E-04 +/- 1.72E-05
23	368.83	1.15E+00 +/- 2.27E-01	1.48E+00	3.24E-04 +/- 1.77E-05
24	375.76	5.08E+00 +/- 3.84E-01	1.47E+00	3.18E-04 +/- 1.78E-05
M 25	380.87	1.35E+00 +/- 1.71E-01	1.47E+00	3.14E-04 +/- 1.79E-05
m 26	383.47	1.16E+00 +/- 1.51E-01	1.47E+00	3.12E-04 +/- 1.80E-05
27	393.66	2.34E+00 +/- 2.14E-01	1.46E+00	3.03E-04 +/- 1.81E-05
28	400.66	1.65E-01 +/- 1.10E-01	1.46E+00	2.98E-04 +/- 1.82E-05
29	413.70	7.33E+00 +/- 3.02E-01	1.45E+00	2.88E-04 +/- 1.83E-05
30	423.30	2.24E-01 +/- 1.01E-01	1.45E+00	2.82E-04 +/- 1.83E-05
31	452.36	7.89E-01 +/- 1.14E-01	1.43E+00	2.63E-04 +/- 1.81E-05
32	511.11	1.60E-01 +/- 7.78E-02	1.40E+00	2.33E-04 +/- 1.66E-05

33	583.84	2.14E-01	+/-	5.97E-02	1.37E+00	2.06E-04	+/-	1.39E-05
34	662.42	4.38E-01	+/-	7.98E-02	1.35E+00	1.84E-04	+/-	1.12E-05
35	722.01	1.52E-01	+/-	5.15E-02	1.33E+00	1.72E-04	+/-	9.44E-06
36	964.13	6.28E-02	+/-	2.38E-02	1.28E+00	1.38E-04	+/-	6.28E-06
37	1112.12	3.50E-02	+/-	2.43E-02	1.26E+00	1.25E-04	+/-	5.44E-06
38	2236.00	1.00E+02	+/-	1.52E+00	1.18E+00	6.12E-05	+/-	3.31E-05
39	2295.52	1.05E-01	+/-	3.71E-02	1.18E+00	5.85E-05	+/-	3.46E-05

Segment: 10

Detector: DET01 (# 1)

Position: 10

Elapsed Live Time: 110.97 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.220 +/- 0.0086
SE-75	264.65	0.000 +/- 0.0000	0.334 +/- 0.0073
SE-75	279.53	0.000 +/- 0.0000	0.345 +/- 0.0081
SE-75	400.65	0.000 +/- 0.0000	0.394 +/- 0.0102

PEAK ANALYSIS RESULTS							
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency			
1	31.99	2.13E+00	+/- 3.36E-01	2.52E+00	1.65E-05	+/-	1.64E-05
2	50.19	2.16E+01	+/- 1.51E+00	2.00E+00	8.48E-05	+/-	4.23E-05
3	60.17	5.29E+02	+/- 6.81E+00	1.90E+00	1.37E-04	+/-	4.88E-05
4	99.32	2.85E+01	+/- 1.20E+00	1.74E+00	3.30E-04	+/-	3.41E-05
5	111.71	7.69E+00	+/- 7.48E-01	1.72E+00	3.72E-04	+/-	2.73E-05
M 6	125.94	8.48E+00	+/- 3.94E-01	1.70E+00	4.08E-04	+/-	2.27E-05
m 7	129.98	4.03E+01	+/- 1.06E+00	1.69E+00	4.16E-04	+/-	2.21E-05
8	144.72	8.33E-01	+/- 4.61E-01	1.66E+00	4.39E-04	+/-	2.19E-05
9	148.57	2.93E+00	+/- 4.53E-01	1.66E+00	4.43E-04	+/-	2.22E-05
10	185.71	1.70E+00	+/- 3.63E-01	1.59E+00	4.61E-04	+/-	2.50E-05
11	196.18	8.11E-01	+/- 3.40E-01	1.57E+00	4.59E-04	+/-	2.52E-05
12	208.67	9.01E+00	+/- 5.88E-01	1.55E+00	4.56E-04	+/-	2.51E-05
13	256.24	6.58E-01	+/- 2.42E-01	1.48E+00	4.29E-04	+/-	2.22E-05
14	268.15	5.83E-01	+/- 3.38E-01	1.47E+00	4.20E-04	+/-	2.12E-05
M 15	298.07	3.04E-01	+/- 1.13E-01	1.45E+00	3.97E-04	+/-	1.87E-05
m 16	300.87	7.30E-01	+/- 1.82E-01	1.45E+00	3.95E-04	+/-	1.85E-05
17	311.90	5.07E+00	+/- 2.90E-01	1.44E+00	3.87E-04	+/-	1.76E-05
M 18	333.43	3.96E+00	+/- 3.10E-01	1.43E+00	3.71E-04	+/-	1.62E-05
m 19	336.48	1.70E+00	+/- 1.71E-01	1.43E+00	3.68E-04	+/-	1.60E-05
20	345.73	2.57E+00	+/- 2.59E-01	1.42E+00	3.61E-04	+/-	1.54E-05
21	368.95	5.98E-01	+/- 2.56E-01	1.41E+00	3.45E-04	+/-	1.43E-05
22	375.71	6.18E+00	+/- 4.28E-01	1.41E+00	3.40E-04	+/-	1.40E-05
M 23	380.91	1.59E+00	+/- 1.78E-01	1.40E+00	3.37E-04	+/-	1.38E-05

m 24	383.39	1.73E+00	+/-	1.81E-01	1.40E+00	3.35E-04	+/-	1.37E-05
25	393.59	3.13E+00	+/-	2.22E-01	1.40E+00	3.28E-04	+/-	1.34E-05
26	413.70	8.60E+00	+/-	3.18E-01	1.39E+00	3.15E-04	+/-	1.29E-05
27	423.25	4.16E-01	+/-	1.20E-01	1.39E+00	3.09E-04	+/-	1.27E-05
28	452.25	6.13E-01	+/-	1.35E-01	1.37E+00	2.92E-04	+/-	1.22E-05
29	583.90	1.21E-01	+/-	4.96E-02	1.32E+00	2.32E-04	+/-	1.11E-05
30	652.77	9.41E-02	+/-	4.88E-02	1.30E+00	2.09E-04	+/-	1.04E-05
31	662.42	5.08E-01	+/-	8.04E-02	1.30E+00	2.06E-04	+/-	1.03E-05
32	722.01	9.49E-02	+/-	6.69E-02	1.29E+00	1.89E-04	+/-	9.55E-06
33	778.90	5.16E-02	+/-	3.32E-02	1.27E+00	1.76E-04	+/-	8.75E-06
34	867.39	4.03E-02	+/-	3.42E-02	1.26E+00	1.60E-04	+/-	7.45E-06
35	1085.91	1.68E-02	+/-	1.75E-02	1.22E+00	1.31E-04	+/-	4.92E-06
36	1408.01	3.59E-02	+/-	1.79E-02	1.19E+00	1.09E-04	+/-	6.83E-06
37	2236.00	1.00E+02	+/-	1.52E+00	1.16E+00	9.04E-05	+/-	2.29E-05

Segment: 11

Detector: DET01

(# 1)

Position: 11

Elapsed Live Time: 111.15 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.295 +/- 0.0103
SE-75	264.65	0.000 +/- 0.0000	0.418 +/- 0.0091
SE-75	279.53	0.000 +/- 0.0000	0.427 +/- 0.0099
SE-75	400.65	0.000 +/- 0.0000	0.473 +/- 0.0119

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.09	1.13E+00	+/- 2.31E-01	2.17E+00 1.33E-03 +/- 8.54E-03
2	50.11	1.57E+01	+/- 1.32E+00	1.78E+00 5.99E-04 +/- 1.59E-03
3	60.17	4.64E+02	+/- 6.04E+00	1.70E+00 5.03E-04 +/- 8.47E-04
4	99.32	3.44E+01	+/- 1.16E+00	1.58E+00 4.09E-04 +/- 1.03E-04
5	103.84	2.59E+01	+/- 8.82E-01	1.57E+00 4.07E-04 +/- 7.76E-05
6	111.70	4.55E+00	+/- 8.22E-01	1.56E+00 4.03E-04 +/- 4.47E-05
7	115.65	5.45E+00	+/- 8.16E-01	1.56E+00 4.02E-04 +/- 3.34E-05
M 8	123.71	2.39E+00	+/- 2.55E-01	1.55E+00 4.00E-04 +/- 2.34E-05
m 9	125.94	9.17E+00	+/- 3.91E-01	1.55E+00 4.00E-04 +/- 2.37E-05
m 10	129.97	4.60E+01	+/- 1.13E+00	1.54E+00 3.99E-04 +/- 2.64E-05
11	148.57	2.29E+00	+/- 4.64E-01	1.51E+00 3.97E-04 +/- 4.23E-05
12	161.39	1.05E+00	+/- 4.55E-01	1.49E+00 3.96E-04 +/- 4.79E-05
13	172.28	1.46E+00	+/- 3.74E-01	1.48E+00 3.95E-04 +/- 4.96E-05
14	185.71	9.48E-01	+/- 4.37E-01	1.46E+00 3.93E-04 +/- 4.88E-05
15	208.69	9.27E+00	+/- 5.93E-01	1.43E+00 3.88E-04 +/- 4.34E-05
16	256.15	8.82E-01	+/- 2.29E-01	1.38E+00 3.74E-04 +/- 2.77E-05

17	268.18	5.21E-01	+/-	2.80E-01	1.37E+00	3.70E-04	+/-	2.43E-05
M 18	298.00	6.39E-01	+/-	1.37E-01	1.35E+00	3.58E-04	+/-	1.83E-05
m 19	300.90	7.97E-01	+/-	1.58E-01	1.35E+00	3.57E-04	+/-	1.79E-05
20	311.90	4.97E+00	+/-	3.26E-01	1.34E+00	3.53E-04	+/-	1.69E-05
21	324.45	9.77E-01	+/-	2.22E-01	1.34E+00	3.47E-04	+/-	1.63E-05
M 22	333.45	4.37E+00	+/-	3.27E-01	1.34E+00	3.43E-04	+/-	1.63E-05
m 23	336.37	1.48E+00	+/-	1.56E-01	1.33E+00	3.42E-04	+/-	1.63E-05
24	345.65	3.35E+00	+/-	2.81E-01	1.33E+00	3.38E-04	+/-	1.66E-05
25	375.74	6.81E+00	+/-	4.43E-01	1.32E+00	3.25E-04	+/-	1.79E-05
M 26	380.89	1.93E+00	+/-	1.95E-01	1.32E+00	3.23E-04	+/-	1.81E-05
m 27	383.54	1.66E+00	+/-	1.70E-01	1.32E+00	3.21E-04	+/-	1.83E-05
28	393.69	3.59E+00	+/-	2.11E-01	1.31E+00	3.17E-04	+/-	1.87E-05
29	400.66	1.83E-01	+/-	9.54E-02	1.31E+00	3.14E-04	+/-	1.90E-05
30	413.70	8.99E+00	+/-	3.21E-01	1.31E+00	3.08E-04	+/-	1.94E-05
31	423.27	5.41E-01	+/-	1.03E-01	1.30E+00	3.04E-04	+/-	1.97E-05
32	452.26	9.44E-01	+/-	1.15E-01	1.29E+00	2.91E-04	+/-	2.00E-05
33	511.83	4.13E-01	+/-	8.72E-02	1.28E+00	2.67E-04	+/-	1.91E-05
34	584.07	1.35E-01	+/-	5.10E-02	1.26E+00	2.40E-04	+/-	1.64E-05
35	662.42	4.34E-01	+/-	8.14E-02	1.24E+00	2.15E-04	+/-	1.30E-05
36	722.01	2.83E-01	+/-	6.60E-02	1.23E+00	1.97E-04	+/-	1.08E-05
37	1001.03	3.67E-02	+/-	2.22E-02	1.19E+00	1.39E-04	+/-	6.19E-06
38	2236.00	1.00E+02	+/-	1.52E+00	1.13E+00	5.79E-05	+/-	3.30E-05

Segment: 12

Detector: DET01

(# 1)

Position: 12

Elapsed Live Time: 111.69 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.187 +/- 0.0068
SE-75	264.65	0.000 +/- 0.0000	0.296 +/- 0.0065
SE-75	279.53	0.000 +/- 0.0000	0.301 +/- 0.0071
SE-75	400.65	0.000 +/- 0.0000	0.360 +/- 0.0094

PEAK ANALYSIS RESULTS			
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency			
				2.71E+00	2.52E-09		
1	32.14	1.87E+00	+/-	3.07E-01	+/-	1.54E-08	
2	50.14	2.23E+01	+/-	1.54E+00	2.13E-06	+/-	5.37E-06
3	60.17	4.19E+02	+/-	5.48E+00	2.02E+00	+/-	2.08E-05
4	99.32	2.22E+01	+/-	1.05E+00	1.84E+00	+/-	5.61E-05
5	111.71	6.68E+00	+/-	6.68E-01	1.81E+00	+/-	3.51E-05
M 6	125.97	6.82E+00	+/-	3.50E-01	1.78E+00	+/-	2.45E-05
m 7	129.99	3.35E+01	+/-	9.55E-01	1.78E+00	+/-	2.82E-05
8	144.70	1.11E+00	+/-	4.13E-01	1.75E+00	+/-	4.70E-05

9	148.57	2.30E+00	+/-	4.07E-01	1.74E+00	5.08E-04	+/-	5.12E-05
10	172.11	1.24E+00	+/-	4.08E-01	1.69E+00	5.45E-04	+/-	6.42E-05
11	185.71	8.00E-01	+/-	4.62E-01	1.66E+00	5.47E-04	+/-	6.36E-05
12	196.39	1.02E+00	+/-	3.94E-01	1.64E+00	5.42E-04	+/-	6.05E-05
13	204.16	2.50E+00	+/-	3.79E-01	1.63E+00	5.35E-04	+/-	5.73E-05
14	208.68	5.75E+00	+/-	5.50E-01	1.62E+00	5.31E-04	+/-	5.52E-05
15	255.84	6.04E-01	+/-	2.24E-01	1.55E+00	4.67E-04	+/-	3.21E-05
16	300.10	7.53E-01	+/-	1.98E-01	1.51E+00	4.04E-04	+/-	1.94E-05
17	311.90	5.31E+00	+/-	3.16E-01	1.50E+00	3.88E-04	+/-	1.81E-05
M 18	333.41	2.65E+00	+/-	2.57E-01	1.48E+00	3.62E-04	+/-	1.72E-05
m 19	336.43	1.27E+00	+/-	1.52E-01	1.48E+00	3.59E-04	+/-	1.72E-05
20	345.71	2.60E+00	+/-	2.40E-01	1.47E+00	3.49E-04	+/-	1.72E-05
21	368.90	7.29E-01	+/-	2.37E-01	1.46E+00	3.25E-04	+/-	1.77E-05
22	375.75	4.50E+00	+/-	3.71E-01	1.45E+00	3.19E-04	+/-	1.79E-05
M 23	380.86	1.25E+00	+/-	1.61E-01	1.45E+00	3.14E-04	+/-	1.80E-05
m 24	383.44	1.12E+00	+/-	1.46E-01	1.45E+00	3.12E-04	+/-	1.80E-05
25	393.53	2.17E+00	+/-	2.06E-01	1.44E+00	3.03E-04	+/-	1.82E-05
26	400.66	2.16E-01	+/-	1.03E-01	1.44E+00	2.98E-04	+/-	1.83E-05
27	413.70	6.72E+00	+/-	2.74E-01	1.43E+00	2.87E-04	+/-	1.84E-05
28	423.42	2.80E-01	+/-	7.83E-02	1.43E+00	2.80E-04	+/-	1.84E-05
29	452.15	1.06E+00	+/-	1.21E-01	1.41E+00	2.62E-04	+/-	1.82E-05
30	662.42	3.01E-01	+/-	6.27E-02	1.33E+00	1.82E-04	+/-	1.13E-05
31	722.01	2.59E-01	+/-	6.77E-02	1.32E+00	1.70E-04	+/-	9.57E-06
32	778.90	3.55E-02	+/-	2.90E-02	1.30E+00	1.60E-04	+/-	8.31E-06
33	867.39	3.46E-02	+/-	2.31E-02	1.28E+00	1.48E-04	+/-	7.05E-06
34	1085.91	3.02E-02	+/-	2.51E-02	1.25E+00	1.28E-04	+/-	5.60E-06
35	1408.01	8.88E-03	+/-	8.88E-03	1.21E+00	1.08E-04	+/-	7.12E-06
36	2236.00	1.00E+02	+/-	1.52E+00	1.17E+00	6.48E-05	+/-	3.54E-05

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 111.91 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION		RESULTS	
	Energy	Container Transmission	Sample Transmission	
SE-75	136.00	0.000 +/- 0.0000	0.202	+/- 0.0079
SE-75	264.65	0.000 +/- 0.0000	0.318	+/- 0.0069
SE-75	279.53	0.000 +/- 0.0000	0.324	+/- 0.0076
SE-75	400.65	0.000 +/- 0.0000	0.375	+/- 0.0097

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.87	1.42E+00 +/-	2.57E-01	2.63E+00 1.59E-08 +/- 1.04E-07
2	50.31	2.11E+01 +/-	1.49E+00	2.07E+00 5.26E-06 +/- 1.39E-05
3	60.17	4.06E+02 +/-	5.32E+00	1.96E+00 2.29E-05 +/- 3.88E-05
4	67.72	5.41E-01 +/-	3.62E-01	1.91E+00 4.96E-05 +/- 5.99E-05
5	87.14	1.28E+00 +/-	5.67E-01	1.83E+00 1.64E-04 +/- 8.02E-05
6	99.37	1.99E+01 +/-	9.84E-01	1.79E+00 2.50E-04 +/- 6.31E-05
7	111.64	5.24E+00 +/-	6.07E-01	1.77E+00 3.29E-04 +/- 3.67E-05
M 8	125.93	5.46E+00 +/-	3.22E-01	1.74E+00 4.02E-04 +/- 2.40E-05
m 9	129.97	2.49E+01 +/-	8.15E-01	1.74E+00 4.19E-04 +/- 2.77E-05
M 10	144.64	1.39E+00 +/-	2.22E-01	1.71E+00 4.65E-04 +/- 4.61E-05
m 11	146.84	1.31E+00 +/-	2.26E-01	1.70E+00 4.70E-04 +/- 4.85E-05
m 12	149.26	1.86E+00 +/-	2.69E-01	1.70E+00 4.75E-04 +/- 5.08E-05
13	172.12	1.49E+00 +/-	4.09E-01	1.65E+00 5.00E-04 +/- 6.22E-05
14	185.71	1.16E+00 +/-	3.27E-01	1.62E+00 5.01E-04 +/- 6.14E-05
15	204.18	2.51E+00 +/-	2.95E-01	1.59E+00 4.91E-04 +/- 5.54E-05
16	208.68	3.95E+00 +/-	5.02E-01	1.58E+00 4.88E-04 +/- 5.34E-05
17	239.04	4.30E-01 +/-	2.20E-01	1.53E+00 4.56E-04 +/- 3.88E-05
18	300.10	1.57E+00 +/-	2.64E-01	1.47E+00 3.86E-04 +/- 1.92E-05
19	311.90	8.51E+00 +/-	3.50E-01	1.47E+00 3.74E-04 +/- 1.79E-05
20	323.61	7.21E-01 +/-	2.17E-01	1.46E+00 3.62E-04 +/- 1.74E-05
M 21	333.47	1.99E+00 +/-	2.41E-01	1.45E+00 3.53E-04 +/- 1.73E-05
m 22	336.39	6.26E-01 +/-	1.22E-01	1.45E+00 3.50E-04 +/- 1.73E-05
23	345.77	1.05E+00 +/-	2.51E-01	1.45E+00 3.41E-04 +/- 1.75E-05
24	375.76	4.14E+00 +/-	3.32E-01	1.43E+00 3.16E-04 +/- 1.85E-05
M 25	380.92	9.18E-01 +/-	1.41E-01	1.43E+00 3.12E-04 +/- 1.87E-05
m 26	383.48	8.14E-01 +/-	1.26E-01	1.43E+00 3.10E-04 +/- 1.88E-05
27	393.60	1.65E+00 +/-	1.90E-01	1.42E+00 3.03E-04 +/- 1.90E-05
28	400.66	3.23E-01 +/-	1.06E-01	1.42E+00 2.98E-04 +/- 1.92E-05
29	413.70	5.01E+00 +/-	2.46E-01	1.41E+00 2.89E-04 +/- 1.94E-05
30	423.33	2.86E-01 +/-	8.22E-02	1.41E+00 2.83E-04 +/- 1.95E-05
31	452.08	4.82E-01 +/-	8.90E-02	1.39E+00 2.67E-04 +/- 1.94E-05
32	512.06	5.22E-01 +/-	7.95E-02	1.37E+00 2.39E-04 +/- 1.80E-05
33	662.42	5.58E-01 +/-	7.54E-02	1.32E+00 1.92E-04 +/- 1.21E-05
34	722.01	1.70E-01 +/-	5.02E-02	1.30E+00 1.80E-04 +/- 1.01E-05
35	2236.00	1.00E+02 +/-	1.51E+00	1.17E+00 5.36E-05 +/- 3.03E-05
36	2295.47	8.56E-02 +/-	5.83E-02	1.17E+00 5.06E-05 +/- 3.13E-05

Segment: 14

Detector: DET01 (# 1)

Position: 14

Elapsed Live Time: 111.68 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.227 +/- 0.0085
SE-75	264.65	0.000 +/- 0.0000	0.327 +/- 0.0071
SE-75	279.53	0.000 +/- 0.0000	0.342 +/- 0.0080
SE-75	400.65	0.000 +/- 0.0000	0.403 +/- 0.0103

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.07	1.34E+00 +/-	2.35E-01	2.48E+00 3.51E-06 +/- 2.11E-05
2	50.20	1.54E+01 +/-	1.24E+00	1.98E+00 4.70E-05 +/- 1.15E-04
3	60.17	4.49E+02 +/-	5.84E+00	1.88E+00 9.59E-05 +/- 1.50E-04
4	99.36	2.28E+01 +/-	1.05E+00	1.73E+00 3.19E-04 +/- 7.54E-05
5	111.68	6.60E+00 +/-	6.31E-01	1.70E+00 3.69E-04 +/- 3.93E-05
M 6	125.94	6.06E+00 +/-	3.31E-01	1.68E+00 4.12E-04 +/- 2.40E-05
m 7	129.99	3.13E+01 +/-	9.18E-01	1.67E+00 4.22E-04 +/- 2.68E-05
M 8	144.73	1.64E+00 +/-	2.32E-01	1.65E+00 4.47E-04 +/- 4.16E-05
m 9	146.99	1.71E+00 +/-	2.41E-01	1.65E+00 4.49E-04 +/- 4.35E-05
m 10	149.23	1.98E+00 +/-	2.63E-01	1.64E+00 4.52E-04 +/- 4.52E-05
11	171.67	1.05E+00 +/-	4.05E-01	1.61E+00 4.64E-04 +/- 5.39E-05
12	185.71	1.25E+00 +/-	3.31E-01	1.58E+00 4.64E-04 +/- 5.33E-05
13	204.23	3.03E+00 +/-	2.92E-01	1.56E+00 4.57E-04 +/- 4.85E-05
14	208.67	3.19E+00 +/-	5.33E-01	1.55E+00 4.54E-04 +/- 4.70E-05
15	239.52	5.92E-01 +/-	2.76E-01	1.51E+00 4.32E-04 +/- 3.50E-05
16	256.16	6.43E-01 +/-	2.11E-01	1.49E+00 4.19E-04 +/- 2.89E-05
17	300.10	2.71E+00 +/-	2.86E-01	1.45E+00 3.81E-04 +/- 1.84E-05
18	311.90	1.20E+01 +/-	4.05E-01	1.44E+00 3.71E-04 +/- 1.72E-05
M 19	333.47	2.48E+00 +/-	2.68E-01	1.43E+00 3.54E-04 +/- 1.64E-05
m 20	336.36	8.46E-01 +/-	1.34E-01	1.42E+00 3.51E-04 +/- 1.64E-05
21	345.77	1.73E+00 +/-	2.43E-01	1.42E+00 3.44E-04 +/- 1.65E-05
22	368.88	8.49E-01 +/-	1.68E-01	1.40E+00 3.27E-04 +/- 1.70E-05
23	375.74	4.94E+00 +/-	3.61E-01	1.40E+00 3.22E-04 +/- 1.72E-05
M 24	380.94	1.15E+00 +/-	1.63E-01	1.40E+00 3.19E-04 +/- 1.74E-05
m 25	383.57	8.26E-01 +/-	1.27E-01	1.39E+00 3.17E-04 +/- 1.75E-05
26	393.57	1.62E+00 +/-	1.99E-01	1.39E+00 3.10E-04 +/- 1.77E-05
27	400.66	4.05E-01 +/-	1.03E-01	1.39E+00 3.06E-04 +/- 1.78E-05
28	413.70	6.01E+00 +/-	2.55E-01	1.38E+00 2.98E-04 +/- 1.80E-05
29	423.28	3.41E-01 +/-	9.95E-02	1.38E+00 2.92E-04 +/- 1.81E-05
30	452.18	8.61E-01 +/-	1.06E-01	1.36E+00 2.76E-04 +/- 1.81E-05
31	583.98	2.69E-01 +/-	6.28E-02	1.32E+00 2.19E-04 +/- 1.43E-05
32	662.42	2.74E-01 +/-	7.23E-02	1.29E+00 1.96E-04 +/- 1.14E-05
33	722.01	1.84E-01 +/-	5.51E-02	1.28E+00 1.81E-04 +/- 9.66E-06
34	2236.00	1.00E+02 +/-	1.52E+00	1.15E+00 7.64E-05 +/- 4.15E-05

Segment: 15

Detector: DET01 (# 1)

Position: 15

Elapsed Live Time: 112.55 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.384 +/- 0.0119
SE-75	264.65	0.000 +/- 0.0000	0.470 +/- 0.0101
SE-75	279.53	0.000 +/- 0.0000	0.468 +/- 0.0107
SE-75	400.65	0.000 +/- 0.0000	0.512 +/- 0.0127

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.00	8.71E-01 +/- 2.56E-01	1.88E+00	1.15E-09 +/- 7.29E-09
2	50.22	9.68E+00 +/- 9.95E-01	1.59E+00	1.87E-06 +/- 4.81E-06
3	60.17	2.84E+02 +/- 3.84E+00	1.53E+00	1.23E-05 +/- 2.03E-05
4	87.33	1.05E+00 +/- 4.87E-01	1.46E+00	1.42E-04 +/- 6.72E-05
5	99.29	1.54E+01 +/- 8.50E-01	1.44E+00	2.33E-04 +/- 5.76E-05
6	111.70	2.52E+00 +/- 5.89E-01	1.43E+00	3.22E-04 +/- 3.51E-05
7	115.59	1.32E+00 +/- 5.83E-01	1.43E+00	3.47E-04 +/- 2.85E-05
M 8	125.96	3.87E+00 +/- 2.69E-01	1.42E+00	4.05E-04 +/- 2.37E-05
m 9	129.97	2.17E+01 +/- 7.56E-01	1.41E+00	4.24E-04 +/- 2.75E-05
10	144.72	6.18E-01 +/- 4.19E-01	1.40E+00	4.73E-04 +/- 4.61E-05
11	172.16	9.38E-01 +/- 2.87E-01	1.38E+00	5.05E-04 +/- 6.19E-05
12	185.71	6.44E-01 +/- 3.61E-01	1.37E+00	5.02E-04 +/- 6.08E-05
13	204.19	2.43E+00 +/- 3.19E-01	1.35E+00	4.86E-04 +/- 5.44E-05
14	208.67	2.12E+00 +/- 4.55E-01	1.35E+00	4.81E-04 +/- 5.23E-05
15	300.10	2.00E+00 +/- 2.55E-01	1.31E+00	3.60E-04 +/- 1.79E-05
16	311.90	1.03E+01 +/- 3.62E-01	1.30E+00	3.47E-04 +/- 1.64E-05
17	321.27	6.22E-01 +/- 1.41E-01	1.30E+00	3.37E-04 +/- 1.58E-05
M 18	333.44	1.95E+00 +/- 2.12E-01	1.30E+00	3.24E-04 +/- 1.53E-05
m 19	336.48	7.78E-01 +/- 1.17E-01	1.30E+00	3.21E-04 +/- 1.53E-05
20	345.71	1.07E+00 +/- 2.00E-01	1.29E+00	3.13E-04 +/- 1.53E-05
21	369.31	4.15E-01 +/- 1.41E-01	1.29E+00	2.93E-04 +/- 1.57E-05
22	375.78	3.66E+00 +/- 3.07E-01	1.28E+00	2.88E-04 +/- 1.59E-05
M 23	380.89	6.59E-01 +/- 1.25E-01	1.28E+00	2.84E-04 +/- 1.60E-05
m 24	383.60	4.64E-01 +/- 9.49E-02	1.28E+00	2.82E-04 +/- 1.60E-05
25	393.63	1.20E+00 +/- 1.83E-01	1.28E+00	2.75E-04 +/- 1.62E-05
26	400.66	2.79E-01 +/- 1.03E-01	1.28E+00	2.70E-04 +/- 1.63E-05
27	413.70	4.89E+00 +/- 2.25E-01	1.27E+00	2.62E-04 +/- 1.65E-05
28	423.44	2.91E-01 +/- 1.09E-01	1.27E+00	2.56E-04 +/- 1.66E-05
29	452.10	4.32E-01 +/- 9.93E-02	1.26E+00	2.41E-04 +/- 1.65E-05
30	662.42	2.06E-01 +/- 6.40E-02	1.21E+00	1.75E-04 +/- 1.08E-05
31	1085.91	3.52E-02 +/- 1.76E-02	1.16E+00	1.21E-04 +/- 5.37E-06
32	2236.00	1.00E+02 +/- 1.50E+00	1.11E+00	3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01 (# 1)

Position: 16

Elapsed Live Time: 113.66 sec Elapsed Real Time: 115.00 sec

		TRANSMISSION RESULTS	
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.495 +/- 0.0144
SE-75	264.65	0.000 +/- 0.0000	0.580 +/- 0.0124
SE-75	279.53	0.000 +/- 0.0000	0.597 +/- 0.0134
SE-75	400.65	0.000 +/- 0.0000	0.627 +/- 0.0153

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.11	8.72E-01 +/- 1.76E-01	1.61E+00	4.08E-06 +/- 4.88E-06
2	49.96	4.63E+00 +/- 6.86E-01	1.42E+00	3.03E-05 +/- 1.84E-05
3	60.17	9.36E+01 +/- 1.57E+00	1.38E+00	5.62E-05 +/- 2.41E-05
4	87.37	5.17E-01 +/- 3.40E-01	1.33E+00	1.37E-04 +/- 2.45E-05
5	95.30	7.82E-01 +/- 4.64E-01	1.32E+00	1.59E-04 +/- 2.22E-05
6	99.34	5.81E+00 +/- 5.08E-01	1.31E+00	1.69E-04 +/- 2.09E-05
7	103.98	2.83E+00 +/- 3.94E-01	1.31E+00	1.80E-04 +/- 1.95E-05
8	111.75	1.68E+00 +/- 3.73E-01	1.31E+00	1.97E-04 +/- 1.73E-05
M 9	126.00	1.20E+00 +/- 1.57E-01	1.30E+00	2.22E-04 +/- 1.49E-05
m 10	130.01	8.34E+00 +/- 4.71E-01	1.29E+00	2.28E-04 +/- 1.46E-05
11	185.71	4.71E-01 +/- 1.95E-01	1.26E+00	2.63E-04 +/- 1.76E-05
12	208.68	1.60E+00 +/- 2.59E-01	1.25E+00	2.62E-04 +/- 1.78E-05
13	269.60	2.69E-01 +/- 1.27E-01	1.22E+00	2.41E-04 +/- 1.50E-05
14	300.10	8.73E-01 +/- 1.44E-01	1.20E+00	2.27E-04 +/- 1.31E-05
15	311.90	4.31E+00 +/- 2.27E-01	1.20E+00	2.22E-04 +/- 1.24E-05
16	333.33	1.03E+00 +/- 1.38E-01	1.20E+00	2.12E-04 +/- 1.13E-05
17	345.67	1.94E-01 +/- 1.20E-01	1.20E+00	2.07E-04 +/- 1.08E-05
18	368.43	2.85E-01 +/- 9.34E-02	1.19E+00	1.97E-04 +/- 9.95E-06
19	375.68	1.17E+00 +/- 1.88E-01	1.19E+00	1.94E-04 +/- 9.73E-06
M 20	380.93	2.85E-01 +/- 3.46E-02	1.19E+00	1.92E-04 +/- 9.58E-06
m 21	383.52	1.81E-01 +/- 2.33E-02	1.19E+00	1.91E-04 +/- 9.51E-06
22	393.59	7.19E-01 +/- 1.07E-01	1.19E+00	1.87E-04 +/- 9.26E-06
23	413.70	1.83E+00 +/- 1.53E-01	1.19E+00	1.79E-04 +/- 8.85E-06
24	443.98	7.81E-02 +/- 4.91E-02	1.18E+00	1.68E-04 +/- 8.43E-06
25	452.19	2.65E-01 +/- 5.77E-02	1.18E+00	1.65E-04 +/- 8.35E-06
26	464.99	4.39E-02 +/- 3.17E-02	1.18E+00	1.61E-04 +/- 8.24E-06
27	778.90	3.95E-02 +/- 2.65E-02	1.13E+00	9.86E-05 +/- 6.05E-06
28	867.39	2.53E-02 +/- 2.08E-02	1.12E+00	8.96E-05 +/- 5.22E-06
29	2236.00	1.00E+02 +/- 1.50E+00	1.08E+00	6.28E-05 +/- 1.87E-05

Canberra SGS Assay Report
Instrument ID: SGS

12-19-07 11:00:09 AM
Can ID: LL85001764

Page 19
Count Sequence #: 2499

Summed Spectrum

Peak Locate Report

Sample ID: LL85001764
Peak Locate Performed on: 12-19-07 10:57:50 AM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.67	0.1630	32.00	17.00
2	100.81	0.1167	50.07	25.48
3	121.01	0.0294	60.17	501.84
4	175.42	0.2884	87.38	5.96
5	199.33	0.0590	99.33	118.47
6	224.06	0.0923	111.70	49.83
7	247.90	0.0556	123.78	134.40
8	252.80	0.0556	125.95	134.40
9	260.68	0.0556	129.98	134.40
10	289.90	0.1197	144.62	32.64
11	299.28	0.1403	149.31	24.73
12	323.15	0.2245	161.41	7.70
13	330.06	0.1856	164.50	10.90
14	344.76	0.2429	172.04	7.84
15	373.52	0.0675	186.43	85.17
16	393.06	0.1901	196.19	11.63
17	409.02	0.1130	204.17	34.46
18	418.05	0.0745	208.69	76.51
19	478.97	0.2304	239.15	8.12
20	512.71	0.1951	256.02	10.73
21	537.01	0.2364	268.17	8.05
22	602.45	0.1423	300.89	19.18
23	625.89	0.0781	312.61	65.64
24	649.11	0.2475	324.22	6.61
25	667.48	0.1023	333.44	36.00
26	673.89	0.1606	336.40	18.53
27	692.07	0.1023	345.70	38.77
28	738.30	0.1701	368.82	10.33
29	752.17	0.0762	375.75	66.30
30	762.14	0.1363	380.91	24.22
31	767.91	0.1558	383.48	19.37
32	787.89	0.1059	393.61	34.72
33	799.32	0.2377	399.33	6.59
34	829.54	0.0774	414.43	58.28
35	847.26	0.1577	423.30	15.27
36	905.10	0.1424	452.22	19.28

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	1024.33	0.2063	511.83	6.98
38	1168.57	0.2317	583.95	6.45
39	1327.06	0.1661	663.20	13.33
40	1446.37	0.2081	722.85	7.68
41	1535.29	0.1885	767.31	9.88
42	2004.60	0.1384	1001.97	16.64
43	2551.92	0.2156	1275.63	6.42
44	2924.94	0.2359	1462.14	5.74
45	4473.15	0.0264	2236.24	409.48
46	4591.80	0.2150	2295.57	6.72
47	5234.81	0.2305	2617.07	5.24

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: LL85001764
 Peak Analysis Performed on: 12-19-07 10:57:50 AM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area Uncert.	Continuum Counts
1	61-	71	64.67	32.00	2.49E+03	114.52		3.79E+03
2	94-	104	100.81	50.07	1.75E+04	434.57		6.75E+04
3	114-	127	121.01	60.17	4.37E+05	807.25		7.73E+04
4	168-	178	175.42	87.38	6.79E+02	213.24		1.85E+04
5	194-	203	199.33	99.33	2.36E+04	360.06		4.70E+04
6	217-	227	224.06	111.70	6.26E+03	245.54		2.23E+04
M	7	245-	269	248.23	1.50E+03	83.37		8.95E+03
m	8	245-	269	252.57	7.12E+03	119.74		8.47E+03
m	9	245-	269	260.63	3.31E+04	295.57		6.92E+03
	10	282-	296	289.90	1.45E+03	227.79		1.72E+04
	11	296-	304	299.28	1.33E+03	146.33		9.28E+03
M	12	316-	337	323.49	1.57E+03	112.89		1.12E+04
m	13	316-	337	329.68	1.96E+03	120.90		1.19E+04
	14	337-	348	344.76	8.93E+02	151.34		8.79E+03
	15	368-	380	373.52	1.46E+04	190.57		8.23E+03
	16	385-	400	393.06	4.55E+02	161.52		8.53E+03
	17	401-	412	409.02	2.78E+03	146.15		7.40E+03
	18	412-	425	418.05	6.23E+03	198.08		1.10E+04
	19	475-	483	478.97	3.16E+02	76.87		2.62E+03
	20	509-	520	512.71	5.71E+02	87.67		2.83E+03
	21	534-	541	537.01	1.86E+02	62.70		1.86E+03
	22	594-	609	602.45	1.60E+03	100.21		2.81E+03
	23	620-	633	625.89	7.19E+03	116.18		2.28E+03
	24	641-	656	649.11	9.36E+02	87.41		2.21E+03
M	25	663-	678	667.55	2.98E+03	93.55		1.40E+03
m	26	663-	678	673.47	1.05E+03	50.18		1.57E+03
	27	688-	699	692.07	2.20E+03	84.46		1.90E+03
	28	730-	745	738.30	1.15E+03	78.78		1.68E+03
	29	748-	759	752.17	5.26E+03	124.57		3.50E+03
M	30	759-	775	762.48	1.24E+03	57.86		8.66E+02
m	31	759-	775	767.63	1.07E+03	50.53		6.89E+02
	32	780-	795	787.89	2.26E+03	77.90		1.26E+03
	33	795-	807	799.32	2.18E+02	47.63		7.73E+02
	34	821-	837	829.54	6.72E+03	97.81		9.08E+02
	35	843-	852	847.26	2.72E+02	41.24		6.20E+02
	36	900-	912	905.10	7.29E+02	44.93		4.85E+02
	37	1016-	1032	1024.33	5.59E+02	44.93		4.67E+02

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	1160-	1176	1168.57	583.95	2.11E+02	34.86	3.21E+02	
39	1318-	1335	1327.06	663.20	4.73E+02	35.08	2.32E+02	
40	1438-	1454	1446.37	722.85	1.48E+02	31.84	2.76E+02	
41	1531-	1543	1535.29	767.31	2.33E+02	26.50	1.74E+02	
42	1995-	2013	2004.60	1001.97	5.83E+02	31.68	1.24E+02	
43	2545-	2557	2551.92	1275.63	8.91E+01	13.06	3.09E+01	
44	2921-	2934	2924.94	1462.14	5.68E+01	12.54	3.52E+01	
45	4462-	4483	4473.15	2236.24	1.81E+05	427.41	3.21E+02	
46	4587-	4597	4591.80	2295.57	6.26E+01	12.85	3.74E+01	
47	5226-	5241	5234.81	2617.07	5.71E+01	8.30	3.93E+00	

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: LL85001764
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	0.996	2236.00*	100.00	7.840E+02	1.780E+02
U-235	0.964	185.71*	57.20	2.279E+01	5.955E-01
Np-237	0.964	300.10*	6.63	2.455E+01	1.551E+00
		311.90*	38.60	1.939E+01	3.478E-01
U-238	0.940	1001.03*	0.84	1.715E+02	9.713E+00
Pu-239	0.962	413.70*	0.00	5.710E+05	1.346E+04
Pu-239A	0.967	129.29*	0.01	5.734E+05	1.445E+04
Am-241	0.958	662.42*	0.00	2.150E+05	1.607E+04
Am-241D	0.951	722.01*	0.00	1.464E+05	3.159E+04
Pu-241	0.962	148.57*	0.00	6.903E+05	7.700E+04

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-19-07 10:57:50 AM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	32.00	2.1996E+01	4.61
2	50.07	1.5527E+02	2.49
3	60.17	3.8703E+03	0.32
4	87.38	6.0051E+00	31.42
5	99.33	2.0838E+02	1.55
6	111.70	5.5357E+01	3.93
M 7	123.78	1.3286E+01	5.56
m 8	125.95	6.2997E+01	1.70
10	144.62	1.2826E+01	15.72
M 12	161.41	1.3862E+01	7.21
m 13	164.50	1.7314E+01	6.18
14	172.04	7.9013E+00	16.95
16	196.19	4.0275E+00	35.49
17	204.17	2.4588E+01	5.27
18	208.69	5.5116E+01	3.19
19	239.15	2.7923E+00	24.36
20	256.02	5.0536E+00	15.35
21	268.17	1.6467E+00	33.69
24	324.22	8.2793E+00	9.34
M 25	333.44	2.6344E+01	3.15
m 26	336.40	9.3200E+00	4.77
27	345.70	1.9453E+01	3.85
28	368.82	1.0144E+01	6.88
29	375.75	4.6555E+01	2.38
M 30	380.91	1.0964E+01	4.68
m 31	383.48	9.4428E+00	4.74
32	393.61	1.9957E+01	3.46
33	399.33	1.9321E+00	21.81
35	423.30	2.4064E+00	15.17
36	452.22	6.4496E+00	6.17
37	511.83	4.9451E+00	8.04
38	583.95	1.8637E+00	16.55
41	767.31	2.0581E+00	11.39
43	1275.63	7.8825E-01	14.66
44	1462.14	5.0299E-01	22.06
46	2295.57	5.5415E-01	20.53
47	2617.07	5.0499E-01	14.55

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)					
Pulser	9.02E+02	+/-	1.34E+02	2.14E-02	+/-	3.17E-03		
SE-75	<	1.32E-01	+/-	9.41E-03	<	3.13E-06	+/-	2.23E-07
EU-152x	<	3.42E-01	+/-	2.57E-02	<	8.11E-06	+/-	6.10E-07
U-233	<	9.68E+03	+/-	7.72E+02	<	2.29E-01	+/-	1.83E-02
U-235	2.97E+01	+/-	1.51E+00	7.03E-04	+/-	3.59E-05		
Np-237	1.84E+01	+/-	4.08E-01	4.37E-04	+/-	9.68E-06		
Pu-238	<	1.45E+04	+/-	1.63E+03	<	3.43E-01	+/-	3.86E-02
U-238	2.37E+02	+/-	1.45E+01	5.63E-03	+/-	3.44E-04		
Pu-239	5.40E+05	+/-	1.29E+04	1.28E+01	+/-	3.07E-01		
Pu-239A	5.29E+05	+/-	1.18E+04	1.25E+01	+/-	2.79E-01		
Am-241	1.77E+05	+/-	1.45E+04	4.20E+00	+/-	3.44E-01		
Am-241D	1.58E+05	+/-	1.96E+04	3.74E+00	+/-	4.65E-01		
Pu-241	8.29E+05	+/-	6.31E+04	1.96E+01	+/-	1.50E+00		

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

U-235	1.37E+01	+/-	7.01E-01
Np-237	2.62E-02	+/-	5.80E-04
U-238	7.08E+02	+/-	4.32E+01
Pu-239	8.69E+00	+/-	2.08E-01
Pu-239A	8.51E+00	+/-	1.90E-01
Am-241	5.18E-02	+/-	4.24E-03
Pu-241	8.01E-03	+/-	6.11E-04

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)					
Pulser	7.84E+02	+/-	1.78E+02	1.86E-02	+/-	4.22E-03		
SE-75	<	5.87E-01	+/-	5.29E-03	<	1.39E-05	+/-	1.25E-07
EU-152x	<	6.89E-01	+/-	1.24E-02	<	1.63E-05	+/-	2.93E-07
U-233	<	4.65E+04	+/-	9.91E+02	<	1.10E+00	+/-	2.35E-02
U-235		2.28E+01	+/-	5.95E-01		5.40E-04	+/-	1.41E-05
Np-237		1.96E+01	+/-	3.39E-01		4.65E-04	+/-	8.04E-06
Pu-238	<	7.17E+04	+/-	1.34E+03	<	1.70E+00	+/-	3.17E-02
U-238		1.71E+02	+/-	9.71E+00		4.06E-03	+/-	2.30E-04
Pu-239		5.71E+05	+/-	1.35E+04		1.35E+01	+/-	3.19E-01
Pu-239A		5.73E+05	+/-	1.44E+04		1.36E+01	+/-	3.42E-01
Am-241		2.15E+05	+/-	1.61E+04		5.09E+00	+/-	3.81E-01
Am-241D		1.46E+05	+/-	3.16E+04		3.47E+00	+/-	7.49E-01
Pu-241		6.90E+05	+/-	7.70E+04		1.64E+01	+/-	1.82E+00

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)
U-235	1.06E+01
Np-237	2.79E-02
U-238	5.11E+02
Pu-239	9.19E+00
Pu-239A	9.23E+00
Am-241	6.28E-02
Pu-241	6.68E-03

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.945 +/- 9.0316
Matrix Longitudinal Ratio: 0.724 +/- 0.0511

Source Vertical Ratio: 0.491 +/- 0.2384
Matrix Vertical Ratio: 0.919 +/- 0.0256

NUDS could not find the transmission peak in one radial segment.

Radioassay Data Sheet
Procedure ID & Rev: WCP-55 03/07/2002

Wed Dec 19 09:56:32 2007
Software Version: GWAS v2.3bGEN

Drum ID	:	LL85001745	Gross Weight (kg)	:	64.8
Sequence Number	:	2498	Fill Height (%)	:	100.0
Assay Date	:	12/12/07 14:02:26	Density (g/cc)	:	0.20
Batch Number	:		Net Weight (kg)	:	41.00
Site ID	:		Waste Matrix Code	:	
			TRUCON	:	

		Errors at 1.00 Sigma
TRU Alpha Activity Concentration:	7.37e-05	+/- 8.88e-06 Ci/g
Total Pu-239 Equiv Activity:	3.10e+00	+/- 3.64e-01 Ci
Total Pu-239 Fissile Gram Equiv:	2.69e+01	+/- 4.97e+00 g
Decay Heat:	9.76e-02	+/- 1.17e-02 W
Total Pu Mass:	2.71e+01	+/- 4.97e+00 g
TMU:	19.70%	
Waste Classification:	TRU	

Isotopes Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
Pu-238	2.75e-02	1.03e+01
Pu-239	9.27e+01	2.23e-01
Pu-240	7.06e+00	2.90e+00
Pu-241	1.64e-01	3.10e+00
Pu-242	6.88e-02	1.00e+01
Am-241	1.88e+00	1.44e+00
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	2.15e+01	6.35e+00

Activity Errors

Isotope	1.00 Sigma Mass (g)	Alpha Activity/ Error/Isotope Mass (g)	1.00 Sigma Isotope (Ci)	Error/Isotope (Ci)	MDA (g)
Pu-238	7.48e-03	1.66e-03	1.28e-01	2.85e-02	1.23e-03
Pu-239	2.52e+01	4.96e+00	1.56e+00	3.07e-01	1.74e-01
Pu-240	1.92e+00	3.82e-01	4.35e-01	8.66e-02	0.00e+00
Pu-241	4.45e-02	8.87e-03	4.60e+00	9.17e-01	1.25e-03
Pu-242	1.87e-02	4.13e-03	7.33e-05	1.62e-05	0.00e+00
Am-241	2.62e-01	5.03e-02	8.96e-01	1.72e-01	6.81e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	1.56e-02	2.98e-03	1.10e-05	2.10e-06	5.94e-04
U-235	1.57e+00	3.32e-01	3.39e-06	7.17e-07	2.45e-01
*U-238	<LLD	0.00e+00	0.00e+00	0.00e+00	1.78e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	1.08e+00
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Reviewer Signature

Date

12-19-07

Date

Software Version: GWAS v2.3bGEN
 Counter Number: SGS
 Data Review for Container: LL85001745
 Item Description Code: \Count Type: DEBRIS
 Sequence Number: 2498
 Assayed on: 12/12/07 14:02:26
 Report Generated: 12/19/07 09:56:17
 AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

REVIEW Pu-240 Wt Pct -2 Sigma error <6.65> greater than <5.87> Review MGA R
 Pu-240 Wt Pct error <2.90> is within limits
 Pu-238 Wt Pct error <10.27> is within limits
 QFIT <1.00> is within limits
 REVIEW MGAERR12: Calculations in MGAABS didn't converge: MGA results may be suspect
 REVIEW MGAERR13: Efficiency curvature boundary reached

OK

OK

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.197> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

REVIEW Pu-239/Pu-239a ratio <4.71e+00> > <2.50e+00>

OK

Section 4 - PULSER REVIEW

DEAD TIME percentage <0.57> is acceptable in Segment 1
 Pulser value <0.99> is within range in Segment 1
 DEAD TIME percentage <0.62> is acceptable in Segment 2
 Pulser value <0.99> is within range in Segment 2
 DEAD TIME percentage <0.61> is acceptable in Segment 3
 Pulser value <0.99> is within range in Segment 3
 DEAD TIME percentage <0.63> is acceptable in Segment 4
 Pulser value <0.99> is within range in Segment 4
 DEAD TIME percentage <0.64> is acceptable in Segment 5
 Pulser value <0.99> is within range in Segment 5
 DEAD TIME percentage <0.69> is acceptable in Segment 6
 Pulser value <0.98> is within range in Segment 6
 DEAD TIME percentage <0.75> is acceptable in Segment 7
 Pulser value <0.99> is within range in Segment 7
 DEAD TIME percentage <0.85> is acceptable in Segment 8
 Pulser value <0.99> is within range in Segment 8
 DEAD TIME percentage <1.00> is acceptable in Segment 9
 Pulser value <0.99> is within range in Segment 9
 DEAD TIME percentage <1.50> is acceptable in Segment 10
 Pulser value <0.99> is within range in Segment 10
 DEAD TIME percentage <4.21> is acceptable in Segment 11
 Pulser value <1.00> is within range in Segment 11
 DEAD TIME percentage <7.03> is acceptable in Segment 12
 Pulser value <1.00> is within range in Segment 12
 DEAD TIME percentage <5.23> is acceptable in Segment 13
 Pulser value <1.00> is within range in Segment 13
 DEAD TIME percentage <1.68> is acceptable in Segment 14
 Pulser value <0.99> is within range in Segment 14
 DEAD TIME percentage <1.00> is acceptable in Segment 15

Pulser value <0.99> is within range in Segment 15
DEAD TIME percentage <0.83> is acceptable in Segment 16
Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
Transmission results are acceptable in Segment 2
Transmission results are acceptable in Segment 3
Transmission results are acceptable in Segment 4
Transmission results are acceptable in Segment 5
Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

All energy peaks within <3.00e+00> RCHISQ limit

Section 7 - FGE MASS REVIEW

FGE Mass <31.84> is within limits

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

REVIEW Am-241 ratio <96.07> is below lower limit <200.00>
 Np-237 ratio <1612.41> is above lower limit <125.00>

OK

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <25.16> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Am-241D > Am-241A: Calculation not performed

OK Checked

Independent Reviewer: Robert J. Hushoff Date: 12-19-07

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS
Data Review for Container: LL85001745
Item Description Code:
Sequence Number: 2498
Assayed on: 12/12/07 14:02:26
AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA Pu-240 Wt Pct -2 Sigma error is greater than upper limit. MGAERR12 MGAERR13	> OK
SECTION 3 - SELF-ABSORPTION Pu-239/Pu-239a ratio is greater than upper limit.	OK
SECTION 9 - IDC COUNT TYPE IDC is not available.	N/A
SECTION 10 - AM-241 & NP-237 INTERFERENCE TEST Possible Am-241 interference with 129 KeV peak.	OK . Checked .

Technical Reviewer: Robert J. Hashitt Jr. Date: 12-19-07

M G A R E P O R T

Report generated on:

12-19-07 9:40:04 AM

MGA version: MGA V9.5 CI

Spectrum ID: 11202498.CNF Sens : 30.0% LT: 55.1 Mins DT: 2.85
Measurement date: 12-12-07 Declared date: 12-12-07

Sample ID: LL85001745 Detector: Total counts: 2.889E+06

Pu g/cm² = 0.1000 Cd g/cm² = 2.0000 FWHM at 122 keV = 608 eV
QFIT = 1.00 FWHM at 208 keV = 776 eV
NQFIT = 1.00

Isotope	Relative to Pu-239	%*		Relative to Pu-241	%*		Isotope analysis at			
		Err	Err		Err	% weight	Meas. date	Decl. date	% weight	% Err
Pu-238	0.000297	10.3	10.2	0.1682	10.2	0.02755	10.27	0.02755	10.27	
Pu-239	1.000000	0.0	1.5	565.7247	3.1	92.67841	0.22	92.67841	0.22	
Pu-240	0.076193	3.1	2.7	43.1041	3.9	7.06143	2.90	7.06143	2.90	
Pu-241	0.001768	3.1	2.8	1.0000	0.0	0.16382	3.10	0.16382	3.10	
Pu-242	(New alg.)			0.4199 (10)		0.06880 (10)		0.06880 (10)		
Am-241	0.020235	1.5	0.5	11.4476	2.9	1.87538	1.44	1.87538	1.44	
U-235	0.232194	6.2	6.4			21.51935	6.35	21.51935	6.35	

Pu-240 effective (meas. date) = 7.246 +/- 3.15%
Am-241 separated about 52.566 +/- 0.252 years ago
Am/Pu-241 weight ratio = 11.44765 +/- 2.89%

Messages :

Lead x-rays detected.
Error in GFIT routine : probable weak peak in location 2.
Calculations in MGAABS didn't converge : results may be suspect.
Efficiency curvature boundary reached.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Gamma Waste Assay

Sample Information

File Name: C:\WAS\DATA\2500\11102498.S11
Sample ID: LL85001745 Count Sequence Number: 2498
Assay Start: 12-12-07 2:02:28 PM
Description 1:
Description 2:
Location:
Comment:
Waste Type:
Weight: Gross: 64800.0 g Net: 41000.0 g
Density: 0.197 g /ml
Container Type: 55 Gal Galv 23.8
Container: Volume: 208000. ml Full: 100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: 55 Gal Galv 23.8
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps
Geometric Correction Factor(SWCONTGCF): 0.760
Date of efficiency calibration approval: 8-27-2003 2:05:34 PM
Mu Factors response file: Lucite response
Transmission Calib. Time: 12-10-2007 3:51:07 PM 28849

Reviewed by:

Date: 12-19-07

Segment Results

Segment: 1 Detector: DET01 (# 1) Position: 1

Elapsed Live Time: 114.35 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.278 +/- 0.0087
SE-75	264.65	0.000 +/- 0.0000	0.361 +/- 0.0078
SE-75	279.53	0.000 +/- 0.0000	0.364 +/- 0.0084
SE-75	400.65	0.000 +/- 0.0000	0.412 +/- 0.0104

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.63	1.27E-01 +/- 5.81E-02	2.26E+00	3.51E-10 +/- 2.55E-09
2	49.18	2.25E+00 +/- 2.47E-01	1.84E+00	6.77E-07 +/- 2.05E-06
3	60.20	1.68E-01 +/- 8.18E-02	1.74E+00	6.37E-06 +/- 1.17E-05
4	279.54	1.13E-01 +/- 7.90E-02	1.43E+00	3.08E-04 +/- 1.90E-05
5	1001.03	7.00E-02 +/- 3.19E-02	1.22E+00	9.18E-05 +/- 4.92E-06
6	2236.00	1.00E+02 +/- 1.49E+00	1.15E+00	3.40E-05 +/- 2.15E-05

Segment: 2 Detector: DET01 (# 1) Position: 2

Elapsed Live Time: 114.29 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.075 +/- 0.0042
SE-75	264.65	0.000 +/- 0.0000	0.141 +/- 0.0032
SE-75	279.53	0.000 +/- 0.0000	0.146 +/- 0.0037
SE-75	400.65	0.000 +/- 0.0000	0.186 +/- 0.0054

P E A K A N A L Y S I S R E S U L T S					
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency	
1	49.04	2.39E+00 +/- 2.49E-01	2.96E+00	7.90E-05 +/-	2.11E-04
2	148.57	2.31E-01 +/- 1.36E-01	2.24E+00	4.14E-04 +/-	4.21E-05
3	722.01	8.62E-02 +/- 2.73E-02	1.55E+00	1.71E-04 +/-	9.64E-06
4	964.13	2.37E-02 +/- 2.10E-02	1.46E+00	1.32E-04 +/-	6.07E-06
5	1408.01	8.62E-03 +/- 8.62E-03	1.37E+00	1.02E-04 +/-	6.88E-06
6	2236.00	1.00E+02 +/- 1.49E+00	1.30E+00	9.73E-05 +/-	5.41E-05

Segment: 3 Detector: DET01 (# 1) Position: 3

Elapsed Live Time: 114.30 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S					
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.087 +/- 0.0047
SE-75	264.65	0.000 +/- 0.0000	0.147 +/- 0.0033
SE-75	279.53	0.000 +/- 0.0000	0.152 +/- 0.0038
SE-75	400.65	0.000 +/- 0.0000	0.193 +/- 0.0055

P E A K A N A L Y S I S R E S U L T S					
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency	
1	49.03	2.82E+00 +/- 2.67E-01	2.82E+00	3.56E-05 +/-	1.79E-05
2	1085.91	2.59E-02 +/- 1.98E-02	1.42E+00	1.28E-04 +/-	4.75E-06
3	2236.00	1.00E+02 +/- 1.49E+00	1.29E+00	1.32E-04 +/-	3.24E-05

Segment: 4 Detector: DET01 (# 1) Position: 4

Elapsed Live Time: 114.28 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.169 +/- 0.0061
SE-75	264.65	0.000 +/- 0.0000	0.252 +/- 0.0055
SE-75	279.53	0.000 +/- 0.0000	0.255 +/- 0.0061
SE-75	400.65	0.000 +/- 0.0000	0.304 +/- 0.0080

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.32	2.29E+00 +/- 2.87E-01	2.23E+00	9.45E-06 +/- 2.45E-05
2	413.70	1.04E-01 +/- 5.11E-02	1.51E+00	2.94E-04 +/- 1.78E-05
3	867.39	3.47E-02 +/- 1.74E-02	1.34E+00	1.52E-04 +/- 7.25E-06
4	1408.01	1.74E-02 +/- 1.74E-02	1.25E+00	1.06E-04 +/- 7.05E-06
5	2236.00	1.00E+02 +/- 1.50E+00	1.21E+00	7.00E-05 +/- 3.84E-05

Segment: 5 Detector: DET01 (# 1) Position: 5

Elapsed Live Time: 114.26 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.131 +/- 0.0052
SE-75	264.65	0.000 +/- 0.0000	0.205 +/- 0.0045
SE-75	279.53	0.000 +/- 0.0000	0.214 +/- 0.0052
SE-75	400.65	0.000 +/- 0.0000	0.244 +/- 0.0067

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.06	1.81E+00 +/- 3.08E-01	2.45E+00	1.39E-05 +/- 3.94E-05
2	60.14	2.86E-01 +/- 2.16E-01	2.28E+00	4.78E-05 +/- 8.22E-05
3	376.17	7.77E-02 +/- 4.70E-02	1.64E+00	3.11E-04 +/- 1.79E-05
4	400.66	7.12E-02 +/- 4.80E-02	1.63E+00	2.94E-04 +/- 1.87E-05
5	413.70	7.39E-02 +/- 4.50E-02	1.62E+00	2.86E-04 +/- 1.90E-05
6	511.35	2.65E-01 +/- 6.59E-02	1.55E+00	2.38E-04 +/- 1.79E-05
7	1001.03	2.60E-02 +/- 1.50E-02	1.37E+00	1.35E-04 +/- 6.17E-06

8 2236.00 1.00E+02 +/- 1.50E+00 1.25E+00 5.76E-05 +/- 3.29E-05

Segment: 6 Detector: DET01 (# 1) Position: 6

Elapsed Live Time: 114.21 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.124 +/- 0.0056
SE-75	264.65	0.000 +/- 0.0000	0.192 +/- 0.0043
SE-75	279.53	0.000 +/- 0.0000	0.198 +/- 0.0049
SE-75	400.65	0.000 +/- 0.0000	0.244 +/- 0.0067

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	49.00	2.43E+00 +/- 3.51E-01	2.50E+00	1.90E-05 +/- 5.13E-05
2	60.24	9.14E-01 +/- 2.86E-01	2.32E+00	6.12E-05 +/- 9.96E-05
3	129.29	3.05E-01 +/- 1.94E-01	2.01E+00	4.31E-04 +/- 2.73E-05
4	264.66	3.10E-01 +/- 1.56E-01	1.75E+00	4.25E-04 +/- 2.79E-05
5	413.70	1.08E-01 +/- 4.38E-02	1.62E+00	3.09E-04 +/- 1.95E-05
6	662.42	6.29E-02 +/- 3.17E-02	1.48E+00	2.10E-04 +/- 1.26E-05
7	2236.00	1.00E+02 +/- 1.49E+00	1.25E+00	4.34E-05 +/- 2.42E-05

Segment: 7 Detector: DET01 (# 1) Position: 7

Elapsed Live Time: 114.14 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.129 +/- 0.0058
SE-75	264.65	0.000 +/- 0.0000	0.203 +/- 0.0045
SE-75	279.53	0.000 +/- 0.0000	0.211 +/- 0.0051
SE-75	400.65	0.000 +/- 0.0000	0.257 +/- 0.0069

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	60.20	1.53E+00 +/-	3.45E-01	2.29E+00 1.61E-05 +/- 2.39E-05
2	279.54	2.93E-01 +/-	1.64E-01	1.70E+00 4.58E-04 +/- 2.40E-05
3	662.42	2.43E-02 +/-	2.08E-02	1.46E+00 2.03E-04 +/- 1.17E-05
4	1085.91	2.48E-02 +/-	2.14E-02	1.34E+00 1.35E-04 +/- 5.76E-06
5	1408.01	3.46E-02 +/-	1.73E-02	1.29E+00 1.05E-04 +/- 7.16E-06
6	2236.00	1.00E+02 +/-	1.50E+00	1.24E+00 5.07E-05 +/- 2.69E-05

Segment: 8

Detector: DET01 (# 1)

Position: 8

Elapsed Live Time: 114.02 sec

Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.139 +/- 0.0059
SE-75	264.65	0.000 +/- 0.0000	0.203 +/- 0.0045
SE-75	279.53	0.000 +/- 0.0000	0.209 +/- 0.0051
SE-75	400.65	0.000 +/- 0.0000	0.260 +/- 0.0070

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.23	3.21E-01 +/-	1.16E-01	3.09E+00 7.90E-06 +/- 7.62E-06
2	48.81	2.26E+00 +/-	4.61E-01	2.41E+00 5.42E-05 +/- 2.79E-05
3	60.15	1.03E+01 +/-	5.20E-01	2.24E+00 1.10E-04 +/- 3.84E-05
4	129.29	3.90E-01 +/-	2.56E-01	1.94E+00 4.27E-04 +/- 2.26E-05
5	244.70	3.64E-01 +/-	2.20E-01	1.75E+00 4.49E-04 +/- 2.38E-05
6	400.66	6.30E-02 +/-	4.17E-02	1.60E+00 3.16E-04 +/- 1.29E-05
7	722.01	4.70E-02 +/-	2.86E-02	1.43E+00 1.78E-04 +/- 8.71E-06
8	1112.12	3.20E-02 +/-	2.34E-02	1.33E+00 1.26E-04 +/- 4.65E-06
9	2236.00	1.00E+02 +/-	1.50E+00	1.23E+00 1.19E-04 +/- 2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 113.85 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.132 +/- 0.0057
SE-75	264.65	0.000 +/- 0.0000	0.204 +/- 0.0045
SE-75	279.53	0.000 +/- 0.0000	0.213 +/- 0.0052
SE-75	400.65	0.000 +/- 0.0000	0.254 +/- 0.0069

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CPS)	Correction Factor	Original Efficiency
1	32.44	7.32E-01 +/- 1.78E-01	3.13E+00	7.75E-09 +/- 4.56E-08
2	49.04	2.27E+00 +/- 5.59E-01	2.44E+00	2.49E-06 +/- 6.44E-06
3	60.15	1.85E+01 +/- 6.95E-01	2.28E+00	1.65E-05 +/- 2.58E-05
4	662.42	3.71E-02 +/- 2.97E-02	1.46E+00	1.84E-04 +/- 1.12E-05
5	867.39	3.03E-02 +/- 2.46E-02	1.39E+00	1.49E-04 +/- 7.00E-06
6	2236.00	1.00E+02 +/- 1.50E+00	1.24E+00	6.12E-05 +/- 3.31E-05

Segment: 10

Detector: DET01 (# 1)

Position: 10

Elapsed Live Time: 113.28 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.217 +/- 0.0081
SE-75	264.65	0.000 +/- 0.0000	0.291 +/- 0.0063
SE-75	279.53	0.000 +/- 0.0000	0.303 +/- 0.0071
SE-75	400.65	0.000 +/- 0.0000	0.347 +/- 0.0090

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.86	6.09E-01 +/-	1.68E-01	2.54E+00 1.62E-05 +/-
2	49.87	2.27E+00 +/-	6.79E-01	2.02E+00 8.33E-05 +/-
3	60.12	5.24E+01 +/-	1.15E+00	1.91E+00 1.37E-04 +/-
4	68.12	9.83E-01 +/-	3.87E-01	1.86E+00 1.81E-04 +/-
5	99.49	1.02E+00 +/-	5.31E-01	1.75E+00 3.30E-04 +/-
6	103.72	8.58E-01 +/-	5.49E-01	1.74E+00 3.46E-04 +/-
M 7	126.17	9.41E-01 +/-	2.30E-01	1.70E+00 4.08E-04 +/-
m 8	129.90	1.71E+00 +/-	3.15E-01	1.70E+00 4.16E-04 +/-
9	208.69	1.95E+00 +/-	3.23E-01	1.60E+00 4.56E-04 +/-
10	311.90	5.97E-01 +/-	2.16E-01	1.50E+00 3.87E-04 +/-
M 11	333.43	6.64E-01 +/-	1.44E-01	1.49E+00 3.71E-04 +/-
m 12	336.40	7.08E-01 +/-	1.49E-01	1.49E+00 3.68E-04 +/-
13	345.73	5.65E-01 +/-	1.75E-01	1.48E+00 3.61E-04 +/-
14	369.26	3.48E-01 +/-	1.65E-01	1.47E+00 3.45E-04 +/-
15	375.79	1.24E+00 +/-	2.23E-01	1.47E+00 3.40E-04 +/-
16	393.67	4.51E-01 +/-	1.36E-01	1.46E+00 3.28E-04 +/-
17	413.70	1.29E+00 +/-	1.41E-01	1.45E+00 3.15E-04 +/-
18	452.17	2.22E-01 +/-	9.75E-02	1.43E+00 2.92E-04 +/-
19	662.42	3.63E-01 +/-	6.17E-02	1.35E+00 2.06E-04 +/-
20	722.01	1.17E-01 +/-	5.81E-02	1.33E+00 1.89E-04 +/-
21	1408.01	1.89E-02 +/-	1.88E-02	1.22E+00 1.09E-04 +/-
22	2236.00	1.00E+02 +/-	1.50E+00	1.18E+00 9.04E-05 +/-

Segment: 11

Detector: DET01 (# 1)

Position: 11

Elapsed Live Time: 110.16 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.251 +/- 0.0095
SE-75	264.65	0.000 +/- 0.0000	0.337 +/- 0.0074
SE-75	279.53	0.000 +/- 0.0000	0.347 +/- 0.0082
SE-75	400.65	0.000 +/- 0.0000	0.389 +/- 0.0101

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.00	4.61E+00 +/-	4.21E-01	2.36E+00 1.33E-03 +/- 8.64E-03
2	50.30	7.37E+00 +/-	1.07E+00	1.90E+00 5.96E-04 +/- 1.57E-03
3	60.17	3.23E+02 +/-	4.37E+00	1.81E+00 5.03E-04 +/- 8.47E-04
4	99.54	2.62E+01 +/-	1.21E+00	1.67E+00 4.09E-04 +/- 1.02E-04
M 5	111.76	9.48E+00 +/-	6.78E-01	1.65E+00 4.03E-04 +/- 4.45E-05
m 6	115.29	7.44E+00 +/-	5.80E-01	1.64E+00 4.02E-04 +/- 3.43E-05
M 7	123.73	2.62E+00 +/-	3.18E-01	1.63E+00 4.00E-04 +/- 2.34E-05
m 8	125.98	1.41E+01 +/-	5.87E-01	1.63E+00 4.00E-04 +/- 2.37E-05
m 9	129.99	2.06E+01 +/-	7.54E-01	1.62E+00 3.99E-04 +/- 2.64E-05
10	144.58	1.16E+00 +/-	8.52E-01	1.60E+00 3.98E-04 +/- 3.95E-05
11	148.57	2.02E+00 +/-	5.78E-01	1.60E+00 3.97E-04 +/- 4.23E-05
12	185.71	5.32E+00 +/-	6.74E-01	1.55E+00 3.93E-04 +/- 4.88E-05
13	196.16	2.22E+00 +/-	7.61E-01	1.54E+00 3.91E-04 +/- 4.68E-05
14	204.19	2.28E+00 +/-	6.53E-01	1.53E+00 3.89E-04 +/- 4.47E-05
15	208.69	1.79E+01 +/-	8.94E-01	1.52E+00 3.88E-04 +/- 4.34E-05
16	228.66	7.26E-01 +/-	4.53E-01	1.50E+00 3.83E-04 +/- 3.68E-05
17	255.91	7.77E-01 +/-	3.84E-01	1.48E+00 3.74E-04 +/- 2.78E-05
18	268.41	1.33E+00 +/-	4.49E-01	1.47E+00 3.70E-04 +/- 2.42E-05
19	279.54	1.23E+00 +/-	5.05E-01	1.46E+00 3.66E-04 +/- 2.15E-05
20	300.10	2.20E+00 +/-	5.11E-01	1.44E+00 3.57E-04 +/- 1.80E-05
21	311.90	9.15E+00 +/-	4.89E-01	1.44E+00 3.53E-04 +/- 1.69E-05
22	323.34	3.61E+00 +/-	4.81E-01	1.43E+00 3.48E-04 +/- 1.64E-05
M 23	333.43	1.00E+01 +/-	4.91E-01	1.43E+00 3.43E-04 +/- 1.63E-05
m 24	336.21	7.68E+00 +/-	4.13E-01	1.43E+00 3.42E-04 +/- 1.63E-05
25	345.69	5.58E+00 +/-	4.61E-01	1.42E+00 3.38E-04 +/- 1.66E-05
26	369.29	3.54E+00 +/-	4.96E-01	1.41E+00 3.28E-04 +/- 1.76E-05
27	375.77	1.53E+01 +/-	6.83E-01	1.41E+00 3.25E-04 +/- 1.79E-05
M 28	380.93	2.71E+00 +/-	2.85E-01	1.41E+00 3.23E-04 +/- 1.81E-05
m 29	383.50	2.65E+00 +/-	2.69E-01	1.41E+00 3.21E-04 +/- 1.83E-05
30	393.61	6.74E+00 +/-	4.00E-01	1.40E+00 3.17E-04 +/- 1.87E-05
31	413.70	1.98E+01 +/-	5.20E-01	1.40E+00 3.08E-04 +/- 1.94E-05
32	452.14	2.52E+00 +/-	2.60E-01	1.38E+00 2.92E-04 +/- 2.00E-05
33	583.95	7.26E-01 +/-	1.44E-01	1.33E+00 2.40E-04 +/- 1.64E-05
34	619.78	8.49E-01 +/-	1.27E-01	1.32E+00 2.28E-04 +/- 1.48E-05
35	653.56	3.78E-01 +/-	1.22E-01	1.31E+00 2.17E-04 +/- 1.34E-05
36	662.42	4.14E+00 +/-	2.23E-01	1.31E+00 2.15E-04 +/- 1.30E-05
37	689.36	2.04E-01 +/-	1.11E-01	1.30E+00 2.07E-04 +/- 1.19E-05
38	722.01	2.09E+00 +/-	1.66E-01	1.29E+00 1.97E-04 +/- 1.08E-05
39	778.90	5.66E-02 +/-	4.14E-02	1.28E+00 1.83E-04 +/- 9.12E-06
40	1112.12	5.33E-02 +/-	3.50E-02	1.22E+00 1.23E-04 +/- 5.40E-06
41	1275.77	2.11E-01 +/-	5.61E-02	1.21E+00 1.05E-04 +/- 5.03E-06
42	2236.00	1.00E+02 +/-	1.53E+00	1.16E+00 5.79E-05 +/- 3.30E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	2617.27	1.92E-01 +/- 4.64E-02	1.15E+00	5.15E-05 +/- 4.85E-05

Segment: 12 Detector: DET01 (# 1) Position: 12

Elapsed Live Time: 106.91 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.138 +/- 0.0077
SE-75	264.65	0.000 +/- 0.0000	0.233 +/- 0.0053
SE-75	279.53	0.000 +/- 0.0000	0.233 +/- 0.0059
SE-75	400.65	0.000 +/- 0.0000	0.294 +/- 0.0082

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.96	3.33E+00 +/- 3.85E-01	3.11E+00	2.26E-09 +/- 1.39E-08
2	50.00	1.08E+01 +/- 1.38E+00	2.39E+00	2.07E-06 +/- 5.24E-06
3	60.16	6.54E+02 +/- 8.39E+00	2.24E+00	1.30E-05 +/- 2.08E-05
4	99.55	4.55E+01 +/- 1.63E+00	2.02E+00	2.34E-04 +/- 5.58E-05
5	103.69	5.09E+00 +/- 2.05E+00	2.01E+00	2.66E-04 +/- 4.93E-05
6	111.70	3.19E+00 +/- 1.03E+00	1.99E+00	3.26E-04 +/- 3.51E-05
7	115.56	5.84E+00 +/- 1.17E+00	1.98E+00	3.52E-04 +/- 2.91E-05
M 8	123.72	5.84E+00 +/- 4.30E-01	1.96E+00	4.04E-04 +/- 2.36E-05
m 9	125.94	2.67E+01 +/- 8.19E-01	1.95E+00	4.16E-04 +/- 2.45E-05
m 10	129.95	3.80E+01 +/- 1.05E+00	1.94E+00	4.37E-04 +/- 2.81E-05
11	144.47	1.58E+00 +/- 1.08E+00	1.91E+00	4.96E-04 +/- 4.67E-05
12	148.57	2.43E+00 +/- 7.35E-01	1.90E+00	5.08E-04 +/- 5.12E-05
13	170.56	4.96E+00 +/- 7.70E-01	1.84E+00	5.44E-04 +/- 6.40E-05
14	185.71	8.33E+00 +/- 1.06E+00	1.81E+00	5.47E-04 +/- 6.36E-05
15	196.43	1.57E+00 +/- 6.56E-01	1.78E+00	5.42E-04 +/- 6.05E-05
16	204.21	8.01E+00 +/- 8.38E-01	1.77E+00	5.35E-04 +/- 5.73E-05
17	208.67	2.99E+01 +/- 1.22E+00	1.76E+00	5.31E-04 +/- 5.52E-05
18	244.70	1.35E+00 +/- 5.74E-01	1.69E+00	4.83E-04 +/- 3.71E-05
19	256.20	1.34E+00 +/- 5.58E-01	1.67E+00	4.66E-04 +/- 3.20E-05
20	268.26	1.76E+00 +/- 6.80E-01	1.65E+00	4.48E-04 +/- 2.73E-05
21	300.10	3.14E+00 +/- 7.25E-01	1.63E+00	4.04E-04 +/- 1.94E-05
22	311.90	1.60E+01 +/- 6.06E-01	1.62E+00	3.88E-04 +/- 1.81E-05
23	323.42	6.22E+00 +/- 6.45E-01	1.61E+00	3.74E-04 +/- 1.74E-05
M 24	333.38	1.69E+01 +/- 6.44E-01	1.60E+00	3.62E-04 +/- 1.72E-05

m 25	336.16	1.41E+01	+/-	5.81E-01	1.59E+00	3.59E-04	+/-	1.72E-05
26	345.66	9.58E+00	+/-	6.11E-01	1.58E+00	3.49E-04	+/-	1.72E-05
27	369.20	6.32E+00	+/-	6.66E-01	1.56E+00	3.25E-04	+/-	1.77E-05
28	375.74	2.84E+01	+/-	9.44E-01	1.56E+00	3.19E-04	+/-	1.78E-05
M 29	380.92	3.95E+00	+/-	3.62E-01	1.55E+00	3.14E-04	+/-	1.80E-05
m 30	383.57	5.14E+00	+/-	3.99E-01	1.55E+00	3.12E-04	+/-	1.80E-05
31	393.66	1.22E+01	+/-	5.35E-01	1.54E+00	3.03E-04	+/-	1.82E-05
32	400.66	6.39E-01	+/-	3.49E-01	1.54E+00	2.98E-04	+/-	1.83E-05
33	413.70	3.54E+01	+/-	7.87E-01	1.53E+00	2.87E-04	+/-	1.84E-05
34	443.98	5.02E-01	+/-	2.47E-01	1.51E+00	2.67E-04	+/-	1.83E-05
35	452.21	4.17E+00	+/-	3.17E-01	1.50E+00	2.62E-04	+/-	1.82E-05
36	511.32	1.21E+00	+/-	2.40E-01	1.47E+00	2.31E-04	+/-	1.67E-05
37	583.81	1.00E+00	+/-	1.57E-01	1.44E+00	2.03E-04	+/-	1.41E-05
38	619.79	1.46E+00	+/-	1.63E-01	1.42E+00	1.93E-04	+/-	1.28E-05
39	653.62	8.60E-01	+/-	1.68E-01	1.41E+00	1.84E-04	+/-	1.16E-05
40	662.42	7.84E+00	+/-	3.13E-01	1.41E+00	1.82E-04	+/-	1.13E-05
41	689.35	5.73E-01	+/-	1.15E-01	1.40E+00	1.76E-04	+/-	1.05E-05
42	710.04	1.52E-01	+/-	6.85E-02	1.39E+00	1.72E-04	+/-	9.89E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	722.01	4.14E+00 +/- 2.31E-01	1.39E+00	1.70E-04 +/- 9.57E-06
44	756.94	2.37E-01 +/- 7.71E-02	1.38E+00	1.64E-04 +/- 8.75E-06
45	770.52	1.93E-01 +/- 1.03E-01	1.37E+00	1.61E-04 +/- 8.47E-06
46	964.13	6.14E-02 +/- 4.57E-02	1.32E+00	1.38E-04 +/- 6.29E-06
47	1275.62	2.81E-01 +/- 5.97E-02	1.27E+00	1.16E-04 +/- 5.28E-06
48	1408.01	4.89E-02 +/- 3.73E-02	1.26E+00	1.08E-04 +/- 7.12E-06
49	2236.00	1.00E+02 +/- 1.54E+00	1.21E+00	6.48E-05 +/- 3.54E-05
50	2616.79	4.10E-01 +/- 6.19E-02	1.20E+00	4.79E-05 +/- 4.32E-05

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 108.99 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.196 +/- 0.0085
SE-75	264.65	0.000 +/- 0.0000	0.293 +/- 0.0065
SE-75	279.53	0.000 +/- 0.0000	0.299 +/- 0.0072
SE-75	400.65	0.000 +/- 0.0000	0.342 +/- 0.0092

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.11	3.49E+00 +/- 3.58E-01	2.65E+00	1.80E-08 +/- 1.17E-07
2	50.02	2.28E+01 +/- 1.60E+00	2.10E+00	4.98E-06 +/- 1.33E-05
3	60.16	4.80E+02 +/- 6.27E+00	1.98E+00	2.29E-05 +/- 3.87E-05
4	99.56	3.50E+01 +/- 1.37E+00	1.81E+00	2.51E-04 +/- 6.27E-05
5	115.13	6.21E+00 +/- 8.59E-01	1.78E+00	3.49E-04 +/- 3.02E-05
M 6	123.63	3.24E+00 +/- 3.45E-01	1.76E+00	3.92E-04 +/- 2.31E-05
m 7	125.97	1.80E+01 +/- 6.69E-01	1.76E+00	4.03E-04 +/- 2.40E-05
m 8	129.96	2.54E+01 +/- 8.40E-01	1.75E+00	4.19E-04 +/- 2.77E-05
M 9	144.70	2.53E+00 +/- 3.40E-01	1.73E+00	4.65E-04 +/- 4.62E-05
m 10	147.09	4.15E+00 +/- 4.44E-01	1.72E+00	4.70E-04 +/- 4.87E-05
m 11	149.19	3.29E+00 +/- 3.92E-01	1.72E+00	4.75E-04 +/- 5.08E-05
12	170.18	2.79E+00 +/- 6.60E-01	1.68E+00	4.99E-04 +/- 6.19E-05
13	185.71	7.06E+00 +/- 6.96E-01	1.65E+00	5.01E-04 +/- 6.14E-05
14	196.35	1.84E+00 +/- 6.81E-01	1.63E+00	4.96E-04 +/- 5.84E-05
15	204.21	5.66E+00 +/- 6.24E-01	1.62E+00	4.91E-04 +/- 5.54E-05
16	208.69	2.17E+01 +/- 9.95E-01	1.61E+00	4.88E-04 +/- 5.34E-05
17	222.19	1.56E+00 +/- 5.84E-01	1.59E+00	4.75E-04 +/- 4.70E-05

18	256.01	7.44E-01	+/-	3.23E-01	1.55E+00	4.37E-04	+/-	3.13E-05
19	279.54	1.05E+00	+/-	4.60E-01	1.53E+00	4.09E-04	+/-	2.33E-05
20	300.10	3.04E+00	+/-	5.35E-01	1.52E+00	3.86E-04	+/-	1.92E-05
21	311.90	1.04E+01	+/-	5.34E-01	1.51E+00	3.74E-04	+/-	1.79E-05
22	323.38	4.71E+00	+/-	5.34E-01	1.50E+00	3.62E-04	+/-	1.74E-05
M 23	333.36	1.19E+01	+/-	5.24E-01	1.50E+00	3.53E-04	+/-	1.73E-05
m 24	336.16	1.03E+01	+/-	4.78E-01	1.49E+00	3.50E-04	+/-	1.73E-05
25	345.72	7.49E+00	+/-	5.17E-01	1.49E+00	3.41E-04	+/-	1.75E-05
26	369.19	4.49E+00	+/-	5.48E-01	1.48E+00	3.22E-04	+/-	1.83E-05
27	375.78	1.87E+01	+/-	7.72E-01	1.47E+00	3.16E-04	+/-	1.85E-05
M 28	380.92	3.45E+00	+/-	3.22E-01	1.47E+00	3.12E-04	+/-	1.87E-05
m 29	383.53	3.88E+00	+/-	3.26E-01	1.47E+00	3.10E-04	+/-	1.88E-05
30	393.62	8.38E+00	+/-	4.39E-01	1.47E+00	3.03E-04	+/-	1.90E-05
31	413.70	2.49E+01	+/-	6.23E-01	1.45E+00	2.89E-04	+/-	1.94E-05
32	443.98	3.07E-01	+/-	2.29E-01	1.44E+00	2.71E-04	+/-	1.95E-05
33	452.14	2.86E+00	+/-	2.62E-01	1.44E+00	2.67E-04	+/-	1.94E-05
34	511.69	6.96E-01	+/-	2.19E-01	1.41E+00	2.39E-04	+/-	1.80E-05
35	583.98	8.00E-01	+/-	1.32E-01	1.38E+00	2.13E-04	+/-	1.53E-05
36	619.82	9.78E-01	+/-	1.63E-01	1.37E+00	2.03E-04	+/-	1.38E-05
37	646.84	2.23E-01	+/-	9.61E-02	1.36E+00	1.96E-04	+/-	1.27E-05
38	653.82	6.48E-01	+/-	1.47E-01	1.35E+00	1.94E-04	+/-	1.24E-05
39	662.42	5.49E+00	+/-	2.62E-01	1.35E+00	1.92E-04	+/-	1.21E-05
40	689.38	2.53E-01	+/-	8.42E-02	1.34E+00	1.86E-04	+/-	1.12E-05
41	722.01	2.51E+00	+/-	1.79E-01	1.33E+00	1.80E-04	+/-	1.01E-05
42	756.89	9.24E-02	+/-	5.73E-02	1.32E+00	1.73E-04	+/-	9.15E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	778.90	5.11E-02 +/- 3.75E-02	1.32E+00	1.70E-04 +/- 8.63E-06
44	861.62	1.13E-01 +/- 5.42E-02	1.30E+00	1.57E-04 +/- 7.28E-06
45	1085.91	8.86E-02 +/- 4.57E-02	1.26E+00	1.32E-04 +/- 5.78E-06
46	1408.01	5.72E-02 +/- 3.28E-02	1.23E+00	1.05E-04 +/- 7.00E-06
47	2236.00	1.00E+02 +/- 1.54E+00	1.18E+00	5.36E-05 +/- 3.03E-05
48	2617.22	2.84E-01 +/- 5.11E-02	1.18E+00	3.68E-05 +/- 3.46E-05

Segment: 14

Detector: DET01 (# 1)

Position: 14

Elapsed Live Time: 113.07 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.161 +/- 0.0065
SE-75	264.65	0.000 +/- 0.0000	0.236 +/- 0.0052
SE-75	279.53	0.000 +/- 0.0000	0.246 +/- 0.0059
SE-75	400.65	0.000 +/- 0.0000	0.296 +/- 0.0079

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.28	1.12E+00 +/- 1.93E-01	2.89E+00	3.68E-06 +/- 2.19E-05
2	50.10	4.22E+00 +/- 8.66E-01	2.26E+00	4.65E-05 +/- 1.15E-04
3	60.15	7.97E+01 +/- 1.47E+00	2.13E+00	9.57E-05 +/- 1.50E-04
4	76.00	6.99E-01 +/- 3.90E-01	2.02E+00	1.90E-04 +/- 1.47E-04
5	99.58	3.60E+00 +/- 6.61E-01	1.93E+00	3.20E-04 +/- 7.46E-05
M 6	111.54	2.08E+00 +/- 3.96E-01	1.90E+00	3.69E-04 +/- 3.96E-05
m 7	115.01	1.94E+00 +/- 3.74E-01	1.89E+00	3.81E-04 +/- 3.21E-05
M 8	123.71	6.61E-01 +/- 2.03E-01	1.87E+00	4.07E-04 +/- 2.35E-05
m 9	125.95	2.36E+00 +/- 3.05E-01	1.87E+00	4.12E-04 +/- 2.40E-05
m 10	129.96	2.94E+00 +/- 3.46E-01	1.86E+00	4.21E-04 +/- 2.68E-05
11	148.57	9.64E-01 +/- 4.09E-01	1.82E+00	4.51E-04 +/- 4.47E-05
12	208.69	3.64E+00 +/- 3.75E-01	1.72E+00	4.54E-04 +/- 4.70E-05
13	238.67	4.63E-01 +/- 2.72E-01	1.68E+00	4.33E-04 +/- 3.53E-05
14	311.90	1.42E+00 +/- 3.04E-01	1.60E+00	3.71E-04 +/- 1.72E-05
15	323.57	4.95E-01 +/- 2.59E-01	1.59E+00	3.61E-04 +/- 1.66E-05
M 16	333.40	1.31E+00 +/- 1.88E-01	1.58E+00	3.54E-04 +/- 1.64E-05
m 17	336.16	1.22E+00 +/- 1.80E-01	1.58E+00	3.51E-04 +/- 1.64E-05
18	345.66	6.50E-01 +/- 2.19E-01	1.57E+00	3.44E-04 +/- 1.65E-05
19	369.22	8.31E-01 +/- 2.42E-01	1.55E+00	3.27E-04 +/- 1.70E-05

20	375.82	2.14E+00	+/-	2.66E-01	1.55E+00	3.22E-04	+/-	1.72E-05
M 21	380.85	2.81E-01	+/-	1.03E-01	1.55E+00	3.19E-04	+/-	1.74E-05
m 22	383.67	3.53E-01	+/-	1.12E-01	1.54E+00	3.17E-04	+/-	1.75E-05
23	393.71	1.12E+00	+/-	1.65E-01	1.54E+00	3.10E-04	+/-	1.77E-05
24	413.70	2.64E+00	+/-	2.08E-01	1.52E+00	2.98E-04	+/-	1.80E-05
25	452.23	3.82E-01	+/-	1.17E-01	1.50E+00	2.76E-04	+/-	1.81E-05
26	619.84	2.16E-01	+/-	6.18E-02	1.42E+00	2.08E-04	+/-	1.30E-05
27	662.42	6.73E-01	+/-	9.08E-02	1.40E+00	1.96E-04	+/-	1.14E-05
28	722.01	4.14E-01	+/-	7.38E-02	1.38E+00	1.81E-04	+/-	9.66E-06
29	2236.00	1.00E+02	+/-	1.50E+00	1.21E+00	7.64E-05	+/-	4.15E-05

Segment: 15

Detector: DET01

(# 1)

Position: 15

Elapsed Live Time: 113.85 sec

Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.129 +/- 0.0059
SE-75	264.65	0.000 +/- 0.0000	0.191 +/- 0.0042
SE-75	279.53	0.000 +/- 0.0000	0.195 +/- 0.0048
SE-75	400.65	0.000 +/- 0.0000	0.234 +/- 0.0065

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.97	2.92E-01 +/- 1.18E-01	3.21E+00	1.13E-09 +/- 7.15E-09
2	59.98	1.66E+01 +/- 6.51E-01	2.30E+00	1.20E-05 +/- 1.99E-05
3	279.54	3.37E-01 +/- 2.27E-01	1.75E+00	3.85E-04 +/- 2.22E-05
4	1085.91	1.73E-02 +/- 1.22E-02	1.36E+00	1.21E-04 +/- 5.37E-06
5	1112.12	8.65E-03 +/- 8.66E-03	1.36E+00	1.18E-04 +/- 5.22E-06
6	1408.01	8.65E-03 +/- 4.43E-02	1.31E+00	9.07E-05 +/- 6.42E-06
7	1462.04	6.06E-02 +/- 2.29E-02	1.31E+00	8.59E-05 +/- 7.38E-06
8	2236.00	1.00E+02 +/- 1.50E+00	1.25E+00	3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01

(# 1)

Position: 16

Elapsed Live Time: 114.05 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.291 +/- 0.0096
SE-75	264.65	0.000 +/- 0.0000	0.381 +/- 0.0082
SE-75	279.53	0.000 +/- 0.0000	0.383 +/- 0.0088
SE-75	400.65	0.000 +/- 0.0000	0.455 +/- 0.0113

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.19	3.12E-01 +/- 1.02E-01	2.18E+00	4.13E-06 +/- 4.92E-06
2	60.09	8.57E+00 +/- 4.61E-01	1.71E+00	5.60E-05 +/- 2.41E-05
3	300.10	2.94E-01 +/- 1.61E-01	1.39E+00	2.27E-04 +/- 1.31E-05
4	778.90	4.97E-02 +/- 2.57E-02	1.23E+00	9.86E-05 +/- 6.05E-06
5	1333.82	7.35E-02 +/- 3.26E-02	1.17E+00	6.64E-05 +/- 4.06E-06
6	2236.00	1.00E+02 +/- 1.50E+00	1.13E+00	6.28E-05 +/- 1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: LL85001745
Peak Locate Performed on: 12-19-07 9:54:00 AM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.69	0.1590	32.01	17.50
2	100.51	0.1626	49.92	12.57
3	120.99	0.0372	60.16	314.47
4	199.76	0.0715	99.55	86.33
5	224.10	0.1417	111.72	21.40
6	230.94	0.1905	115.13	11.68
7	247.35	0.3489	123.68	5.31
8	252.72	0.0969	125.96	49.05
9	260.62	0.0801	129.96	65.35
10	289.67	0.2525	144.64	8.59
11	294.93	0.2341	147.17	11.05
12	299.46	0.2559	149.23	8.30
13	341.66	0.2437	170.49	7.03
14	373.45	0.1204	186.39	27.77
15	409.07	0.1248	204.20	28.28
16	418.03	0.0727	208.68	79.96
17	444.94	0.2644	222.13	5.93
18	478.96	0.2910	239.15	5.40
19	512.88	0.2332	256.11	8.30
20	537.37	0.2286	268.35	7.91
21	602.27	0.1961	300.80	11.29
22	625.89	0.0940	312.61	46.00
23	647.47	0.1624	323.40	13.17
24	667.17	0.1043	333.39	40.40
25	673.28	0.1107	336.18	36.44
26	692.03	0.0996	345.68	41.73
27	739.10	0.1292	369.22	24.10
28	752.20	0.0724	375.77	72.29
29	762.14	0.1355	380.93	25.05
30	767.97	0.1449	383.54	21.58
31	787.95	0.0992	393.64	40.09
32	829.50	0.0712	414.41	68.05
33	905.03	0.1267	452.18	25.06
34	1023.77	0.1924	511.55	8.22
35	1119.22	0.2642	559.28	5.32
36	1168.43	0.1854	583.88	10.19

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	1240.28	0.1660	619.81	12.92
38	1307.89	0.1934	653.61	9.08
39	1327.00	0.1030	663.17	33.19
40	1379.23	0.2041	689.28	8.99
41	1446.34	0.1220	722.84	22.74
42	2551.99	0.2236	1275.66	6.03
43	2924.92	0.2426	1462.13	5.28
44	4451.09	0.2326	2225.21	5.26
45	4473.18	0.0264	2236.26	411.07
46	5234.67	0.1835	2617.00	7.67

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: LL85001745
 Peak Analysis Performed on: 12-19-07 9:54:00 AM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
1	61-	68	64.69	32.01	1.63E+03	85.07	2.32E+03	
2	94-	104	100.51	49.92	6.59E+03	295.18	3.21E+04	
3	114-	127	120.99	60.16	1.80E+05	531.75	3.73E+04	
4	194-	203	199.76	99.55	1.23E+04	289.07	3.14E+04	
5	217-	227	224.10	111.72	9.93E+02	209.47	1.77E+04	
6	227-	237	230.94	115.13	1.30E+03	218.68	1.93E+04	
M	7	243-	266	248.02	123.68	1.55E+03	83.83	1.02E+04
m	8	243-	266	252.59	125.96	6.96E+03	139.68	8.50E+03
m	9	243-	266	260.58	129.96	9.87E+03	173.96	7.68E+03
M	10	282-	306	289.95	144.64	1.07E+03	86.37	8.12E+03
m	11	282-	306	295.01	147.17	1.55E+03	104.13	8.22E+03
m	12	282-	306	299.12	149.23	1.33E+03	96.84	8.31E+03
13	338-	348	341.66	170.49	9.81E+02	162.17	1.06E+04	
14	366-	377	373.45	186.39	2.44E+03	174.24	1.12E+04	
15	401-	412	409.07	204.20	1.59E+03	165.00	1.02E+04	
16	412-	425	418.03	208.68	7.97E+03	214.32	1.35E+04	
17	441-	449	444.94	222.13	2.91E+02	107.50	5.27E+03	
18	474-	486	478.96	239.15	2.53E+02	133.63	6.68E+03	
19	507-	516	512.88	256.11	4.11E+02	100.94	4.33E+03	
20	535-	541	537.37	268.35	3.34E+02	75.55	2.83E+03	
21	599-	609	602.27	300.80	6.66E+02	98.26	3.75E+03	
22	621-	633	625.89	312.61	4.01E+03	121.10	3.98E+03	
23	639-	654	647.47	323.40	1.66E+03	121.47	4.36E+03	
M	24	659-	680	667.45	333.39	4.46E+03	106.48	2.62E+03
m	25	659-	680	673.02	336.18	3.73E+03	96.02	2.97E+03
26	687-	699	692.03	345.68	2.56E+03	110.00	3.55E+03	
27	731-	746	739.10	369.22	1.77E+03	117.75	3.96E+03	
28	746-	759	752.20	375.77	7.17E+03	152.16	5.59E+03	
M	29	759-	775	762.52	380.93	1.17E+03	63.78	1.97E+03
m	30	759-	775	767.75	383.54	1.32E+03	64.79	1.47E+03
31	780-	795	787.95	393.64	3.13E+03	93.52	1.87E+03	
32	821-	837	829.50	414.41	9.00E+03	118.30	1.59E+03	
33	897-	912	905.03	452.18	1.18E+03	62.07	8.91E+02	
34	1015-	1031	1023.77	511.55	5.34E+02	51.67	6.83E+02	
35	1115-	1123	1119.22	559.28	7.71E+01	24.39	2.41E+02	
36	1164-	1176	1168.43	583.88	2.95E+02	31.49	2.62E+02	
37	1232-	1248	1240.28	619.81	4.43E+02	37.04	2.96E+02	

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	1299-	1316	1307.89	653.61	1.75E+02	39.30	4.21E+02	
39	1318-	1335	1327.00	663.17	2.08E+03	53.65	2.45E+02	
40	1375-	1383	1379.23	689.28	1.35E+02	19.64	1.17E+02	
41	1441-	1454	1446.34	722.84	9.89E+02	40.61	2.31E+02	
42	2544-	2556	2551.99	1275.66	8.07E+01	14.21	4.63E+01	
43	2919-	2929	2924.92	1462.13	5.74E+01	10.10	1.86E+01	
44	4444-	4459	4451.09	2225.21	6.42E+01	11.91	2.58E+01	
45	4468-	4483	4473.18	2236.26	1.83E+05	428.67	1.99E+02	
46	5228-	5241	5234.67	2617.00	1.24E+02	11.51	3.28E+00	

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: LL85001745
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	0.995	2236.00*	100.00	7.812E+02	1.792E+02
U-235	0.968	185.71*	57.20	3.741E+00	2.801E-01
Np-237	0.965	300.10*	6.63	1.003E+01	1.482E+00
		311.90*	38.60	1.062E+01	3.311E-01
Pu-239	0.964	413.70*	0.00	7.511E+05	1.709E+04
Pu-239A	0.969	129.29*	0.01	1.676E+05	4.952E+03
Am-241	0.961	662.42*	0.00	9.315E+05	2.554E+04
Am-241D	0.953	722.01*	0.00	9.650E+05	4.072E+04
Pu-241	0.969	148.57*	0.00	6.743E+05	5.088E+04

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-19-07 9:54:00 AM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS & Uncertainty
1	32.01	1.4308E+01	5.22
2	49.92	5.7774E+01	4.49
3	60.16	1.5788E+03	0.39
4	99.55	1.0762E+02	2.37
5	111.72	8.7079E+00	21.11
6	115.13	1.1378E+01	16.87
M 7	123.68	1.3630E+01	5.40
m 8	125.96	6.1067E+01	2.02
M 10	144.64	9.3909E+00	8.07
m 11	147.17	1.3569E+01	6.74
13	170.49	8.6079E+00	16.53
15	204.20	1.3910E+01	10.41
16	208.68	6.9918E+01	2.70
17	222.13	2.5492E+00	37.00
18	239.15	2.2160E+00	52.91
19	256.11	3.6034E+00	24.58
20	268.35	2.9292E+00	22.63
23	323.40	1.4570E+01	7.32
M 24	333.39	3.9140E+01	2.40
m 25	336.18	3.2739E+01	2.59
26	345.68	2.2469E+01	4.30
27	369.22	1.5496E+01	6.67
28	375.77	6.2917E+01	2.14
M 29	380.93	1.0227E+01	5.48
m 30	383.54	1.1546E+01	4.93
31	393.64	2.7449E+01	3.00
33	452.18	1.0353E+01	5.27
34	511.55	4.6895E+00	9.67
35	559.28	6.7683E-01	31.61
36	583.88	2.5849E+00	10.69
37	619.81	3.8846E+00	8.37
38	653.61	1.5335E+00	22.49
40	689.28	1.1802E+00	14.60
42	1275.66	7.0843E-01	17.61
43	1462.13	5.0344E-01	17.60
44	2225.21	5.6292E-01	18.56
46	2617.00	1.0854E+00	9.31

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)	Concentration (uCi/g)
Pulser	8.84E+02 +/- 1.30E+02	2.16E-02 +/- 3.17E-03
SE-75	< 2.39E-01 +/- 1.51E-02	< 5.83E-06 +/- 3.68E-07
EU-152x	< 2.73E-01 +/- 2.05E-02	< 6.65E-06 +/- 5.00E-07
U-233	< 1.04E+04 +/- 7.98E+02	< 2.54E-01 +/- 1.95E-02
U-235	3.39E+00 +/- 3.36E-01	8.27E-05 +/- 8.20E-06
Np-237	1.10E+01 +/- 4.17E-01	2.68E-04 +/- 1.02E-05
Pu-238	< 2.11E+04 +/- 2.37E+03	< 5.14E-01 +/- 5.78E-02
U-238	3.86E+00 +/- 1.47E+00	9.41E-05 +/- 3.58E-05
Pu-239	7.72E+05 +/- 3.15E+04	1.88E+01 +/- 7.68E-01
Pu-239A	1.64E+05 +/- 6.92E+03	4.00E+00 +/- 1.69E-01
Am-241	8.96E+05 +/- 3.97E+04	2.19E+01 +/- 9.67E-01
Am-241D	9.84E+05 +/- 4.87E+04	2.40E+01 +/- 1.19E+00
Pu-241	4.95E+05 +/- 6.74E+04	1.21E+01 +/- 1.64E+00

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

U-235	1.57E+00	+/-	1.56E-01
Np-237	1.56E-02	+/-	5.92E-04
U-238	1.15E+01	+/-	4.37E+00
Pu-239	1.24E+01	+/-	5.07E-01
Pu-239A	2.64E+00	+/-	1.11E-01
Am-241	2.62E-01	+/-	1.16E-02
Pu-241	4.79E-03	+/-	6.52E-04

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)					
Pulser	7.81E+02	+/-	1.79E+02	1.91E-02	+/-	4.37E-03		
SE-75	<	7.69E-01	+/-	7.00E-03	<	1.88E-05	+/-	1.71E-07
EU-152x	<	7.35E-01	+/-	1.33E-02	<	1.79E-05	+/-	3.25E-07
U-233	<	3.69E+04	+/-	7.92E+02	<	8.99E-01	+/-	1.93E-02
U-235	3.74E+00	+/-	2.80E-01	9.12E-05	+/-	6.83E-06		
Np-237	1.06E+01	+/-	3.23E-01	2.58E-04	+/-	7.88E-06		
Pu-238	<	7.56E+04	+/-	1.42E+03	<	1.84E+00	+/-	3.48E-02
U-238	<	1.86E+01	+/-	2.96E-01	<	4.55E-04	+/-	7.22E-06
Pu-239	7.51E+05	+/-	1.71E+04	1.83E+01	+/-	4.17E-01		
Pu-239A	1.68E+05	+/-	4.95E+03	4.09E+00	+/-	1.21E-01		
Am-241	9.31E+05	+/-	2.55E+04	2.27E+01	+/-	6.23E-01		
Am-241D	9.65E+05	+/-	4.07E+04	2.35E+01	+/-	9.93E-01		
Pu-241	6.74E+05	+/-	5.09E+04	1.64E+01	+/-	1.24E+00		

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

U-235	1.73E+00	+/-	1.30E-01
Np-237	1.50E-02	+/-	4.59E-04
Pu-239	1.21E+01	+/-	2.75E-01
Pu-239A	2.70E+00	+/-	7.97E-02
Am-241	2.72E-01	+/-	7.46E-03
Pu-241	6.52E-03	+/-	4.92E-04

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.831 +/- 3.3178
Matrix Longitudinal Ratio: 0.826 +/- 0.0640

Source Vertical Ratio: 0.838 +/- 0.4276
Matrix Vertical Ratio: 0.647 +/- 0.0159

NUDS could not find the transmission peak in one radial segment.

Radioassay Data Sheet
Procedure ID & Rev: WCP-55 03/07/2002

Tue Dec 18 06:56:55 2007
Software Version: GWAS v2.3bGEN

Drum ID	:	LL85901731-R	Gross Weight (kg)	:	64.8
Sequence Number	:	2497	Fill Height (%)	:	100.0
Assay Date	:	12/12/07 12:31:53	Density (g/cc)	:	0.20
Batch Number	:		Net Weight (kg)	:	41.00
Site ID	:		Waste Matrix Code	:	
			TRUCON	:	

		Errors at 1.00 Sigma	
TRU Alpha Activity Concentration:	3.01e-05	+/-	3.43e-06 Ci/g
Total Pu-239 Equiv Activity:	1.25e+00	+/-	1.40e-01 Ci
Total Pu-239 Fissile Gram Equiv:	1.02e+01	+/-	1.88e+00 g
Decay Heat:	3.99e-02	+/-	4.51e-03 W
Total Pu Mass:	1.06e+01	+/-	1.89e+00 g
TMU:	19.09%		
Waste Classification:	TRU		

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
------------------	---------------------	-------------------------------

Pu-238	5.32e-02	2.85e+00
Pu-239	9.27e+01	1.27e-01
Pu-240	7.01e+00	1.67e+00
Pu-241	1.41e-01	1.83e+00
Pu-242	5.10e-02	1.00e+01
Am-241	1.13e+00	9.13e-01
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	2.37e+00	1.27e+01

Activity Errors

Isotope	1.00 Sigma Mass (g)	Alpha Activity/ Error/Isotope Mass (g)	1.00 Sigma Isotope (Ci)	Error/Isotope (Ci)	MDA (g)
Pu-238	5.66e-03	1.09e-03	9.69e-02	1.87e-02	9.00e-04
Pu-239	9.86e+00	1.88e+00	6.12e-01	1.17e-01	9.48e-02
Pu-240	7.45e-01	1.43e-01	1.69e-01	3.24e-02	0.00e+00
Pu-241	1.50e-02	2.87e-03	1.55e+00	2.97e-01	1.17e-03
Pu-242	5.42e-03	1.17e-03	2.13e-05	4.58e-06	0.00e+00
Am-241	1.04e-01	2.01e-02	3.55e-01	6.86e-02	4.03e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	7.05e-03	1.36e-03	4.97e-06	9.56e-07	3.58e-04
U-235	2.52e-01	5.77e-02	5.44e-07	1.25e-07	8.17e-02
*U-238	<LLD	0.00e+00	0.00e+00	0.00e+00	1.67e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	9.64e-01
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Date

12-18-07

Reviewer Signature

Date

AUTOMATED INDEPENDENT TECHNICAL REVIEW BASED ON WCP-55 03/07/2002

Software Version: GWAS v2.3bGEN
Counter Number: SGS
Data Review for Container: LL85901731-R
Item Description Code: \Count Type: DEBRIS
Sequence Number: 2497
Assayed on: 12/12/07 12:31:53
Report Generated: 12/18/07 18:56:39
AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

REVIEW Pu-240 Wt Pct -2 Sigma error <6.78> greater than <5.87> Review MGA R
Pu-240 Wt Pct error <1.67> is within limits
Pu-238 Wt Pct error <2.85> is within limits
REVIEW QFIT <1.48> > <1.20> Review MGA Results *OK*
REVIEW MGAERR13: Efficiency curvature boundary reached *OK*

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.197> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <1.09e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <1.33> is acceptable in Segment 1
Pulser value <0.99> is within range in Segment 1
DEAD TIME percentage <2.12> is acceptable in Segment 2
Pulser value <1.00> is within range in Segment 2
DEAD TIME percentage <4.43> is acceptable in Segment 3
Pulser value <1.01> is within range in Segment 3
DEAD TIME percentage <4.82> is acceptable in Segment 4
Pulser value <1.01> is within range in Segment 4
DEAD TIME percentage <3.30> is acceptable in Segment 5
Pulser value <1.00> is within range in Segment 5
DEAD TIME percentage <2.79> is acceptable in Segment 6
Pulser value <1.00> is within range in Segment 6
DEAD TIME percentage <3.10> is acceptable in Segment 7
Pulser value <1.00> is within range in Segment 7
DEAD TIME percentage <4.33> is acceptable in Segment 8
Pulser value <1.01> is within range in Segment 8
DEAD TIME percentage <3.92> is acceptable in Segment 9
Pulser value <1.00> is within range in Segment 9
DEAD TIME percentage <2.50> is acceptable in Segment 10
Pulser value <0.99> is within range in Segment 10
DEAD TIME percentage <2.03> is acceptable in Segment 11
Pulser value <0.99> is within range in Segment 11
DEAD TIME percentage <1.63> is acceptable in Segment 12
Pulser value <1.00> is within range in Segment 12
DEAD TIME percentage <1.17> is acceptable in Segment 13
Pulser value <0.99> is within range in Segment 13
DEAD TIME percentage <0.85> is acceptable in Segment 14
Pulser value <0.99> is within range in Segment 14
DEAD TIME percentage <0.71> is acceptable in Segment 15
Pulser value <0.99> is within range in Segment 15
DEAD TIME percentage <0.63> is acceptable in Segment 16

Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
Transmission results are acceptable in Segment 2
Transmission results are acceptable in Segment 3
Transmission results are acceptable in Segment 4
Transmission results are acceptable in Segment 5
Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

All energy peaks within <3.00e+00> RCHISQ limit

Section 7 - FGE MASS REVIEW

FGE Mass <12.05> is within limits

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

REVIEW Am-241 ratio <94.95> is below lower limit <200.00>
Np-237 ratio <1399.86> is above lower limit <125.00>

OK

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <9.86> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Am-241D > Am-241A: Calculation not performed

OK Checked.

Independent Reviewer:

Robert J. Hatchett

Date: 12-18-07

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS
Data Review for Container: LL85901731-R
Item Description Code:
Sequence Number: 2497
Assayed on: 12/12/07 12:31:53
AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA	
Pu-240 Wt Pct -2 Sigma error is greater than upper limit.	OK
QFIT is greater than upper limit.	OK
MGAERR13	OK
SECTION 9 - IDC COUNT TYPE	
IDC is not available.	N/A
SECTION 10 - AM-241 & NP-237 INTERFERENCE TEST	
Possible Am-241 interference with 129 KeV peak.	OK . Checked .

Technical Reviewer: Robert J. Harlith Jr. Date: 12-18-07

 M G A R E P O R T

Report generated on:

12-18-07 6:40:51 PM

MGA version: MGA V9.5 CI

Spectrum ID: 11202497.CNF Sens : 30.0% LT: 55.4 Mins DT: 2.07
 Measurement date: 12-12-07 Declared date: 12-12-07

Sample ID: LL85901731-R Detector: Total counts: 2.308E+06

Pu g/cm² = 0.0300 Cd g/cm² = 1.8000 FWHM at 122 keV = 622 eV
 QFIT = 1.48 FWHM at 208 keV = 794 eV
 NQFIT = 1.04

Isotope	Relative to Pu-239	%*	%	Relative to Pu-241	%*	Isotope analysis at			
						Meas. date	Decl. date	% weight	% Err
Pu-238	0.000574	2.9	2.8	0.3780	3.0	0.05320	2.85	0.05320	2.85
Pu-239	1.000000	0.0	0.9	658.8889	1.9	92.74581	0.13	92.74581	0.13
Pu-240	0.075575	1.8	1.5	49.7955	2.3	7.00927	1.67	7.00927	1.67
Pu-241	0.001518	1.9	1.7	1.0000	0.0	0.14076	1.83	0.14076	1.83
Pu-242	(New alg.)			0.3620 (10)		0.05096 (10)		0.05096 (10)	
Am-241	0.012170	1.0	0.5	8.0189	1.8	1.12874	0.91	1.12874	0.91
U-235	0.025535	12.7	12.7			2.36824	12.69	2.36824	12.69

Pu-240 effective (meas. date) = 7.229 +/- 1.82%
 Am-241 separated about 45.660 +/- 0.227 years ago
 Am/Pu-241 weight ratio = 8.01886 +/- 1.74%

Messages :

Lead x-rays detected.
 Efficiency curvature boundary reached.
 Pu-241/Pu-239 efficiency changed in MGACAL by 1%.
 17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
 1.000 sigma errors

Gamma Waste Assay

Sample Information

File Name: C:\WAS\DATA\2500\11102497.S11
Sample ID: LL85901731-R Count Sequence Number: 2497
Assay Start: 12-12-07 12:31:54 PM
Description 1:
Description 2:
Location:
Comment:
Waste Type:
Weight: Gross: 64800.0 g Net: 41000.0 g
Density: 0.197 g /ml
Container Type: 55 Gal Galv 23.8
Container: Volume: 208000. ml Full: 100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: 55 Gal Galv 23.8
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps
Geometric Correction Factor(SWCONTGCF): 0.760
Date of efficiency calibration approval: 8-27-2003 2:05:34 PM
Mu Factors response file: Lucite response
Transmission Calib. Time: 12-10-2007 3:51:07 PM 28849

Reviewed by:



Date: 12-18-07

Segment Results

Segment: 1

Detector: DET01 (# 1)

Position: 1

Elapsed Live Time: 113.47 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.102 +/- 0.0045
SE-75	264.65	0.000 +/- 0.0000	0.161 +/- 0.0036
SE-75	279.53	0.000 +/- 0.0000	0.165 +/- 0.0042
SE-75	400.65	0.000 +/- 0.0000	0.195 +/- 0.0056

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.01	4.53E-01 +/- 1.22E-01	3.52E+00	4.57E-10 +/- 3.25E-09
2	49.55	9.81E+00 +/- 9.66E-01	2.66E+00	7.45E-07 +/- 2.22E-06
3	60.16	1.29E+02 +/- 2.01E+00	2.48E+00	6.33E-06 +/- 1.17E-05
4	99.61	4.60E+00 +/- 6.27E-01	2.21E+00	1.53E-04 +/- 4.15E-05
M 5	125.87	1.47E+00 +/- 1.92E-01	2.13E+00	2.87E-04 +/- 1.88E-05
m 6	129.97	4.60E+00 +/- 3.70E-01	2.12E+00	3.03E-04 +/- 2.20E-05
7	148.57	9.15E-01 +/- 3.08E-01	2.08E+00	3.59E-04 +/- 4.14E-05
8	152.68	4.90E-01 +/- 2.85E-01	2.06E+00	3.67E-04 +/- 4.47E-05
9	208.65	1.27E+00 +/- 2.57E-01	1.95E+00	3.80E-04 +/- 4.53E-05
10	300.10	2.64E-01 +/- 1.44E-01	1.82E+00	2.87E-04 +/- 1.52E-05
11	311.90	3.54E-01 +/- 1.39E-01	1.81E+00	2.76E-04 +/- 1.41E-05
12	333.44	3.06E-01 +/- 1.17E-01	1.79E+00	2.57E-04 +/- 1.33E-05
13	345.72	6.01E-01 +/- 1.24E-01	1.78E+00	2.47E-04 +/- 1.34E-05
14	375.82	8.80E-01 +/- 1.71E-01	1.76E+00	2.25E-04 +/- 1.40E-05
M 15	380.90	2.55E-01 +/- 9.45E-02	1.76E+00	2.22E-04 +/- 1.40E-05
m 16	383.44	1.54E-01 +/- 6.22E-02	1.76E+00	2.20E-04 +/- 1.41E-05
17	393.54	6.19E-01 +/- 1.00E-01	1.75E+00	2.14E-04 +/- 1.43E-05
18	413.70	1.31E+00 +/- 1.23E-01	1.73E+00	2.03E-04 +/- 1.44E-05
19	423.63	1.65E-01 +/- 6.85E-02	1.73E+00	1.97E-04 +/- 1.45E-05
20	662.42	1.00E-01 +/- 5.01E-02	1.56E+00	1.27E-04 +/- 8.85E-06
21	722.01	4.06E-02 +/- 3.01E-02	1.53E+00	1.18E-04 +/- 7.51E-06
22	1085.91	4.36E-02 +/- 1.95E-02	1.41E+00	8.64E-05 +/- 4.52E-06
23	2236.00	1.00E+02 +/- 1.50E+00	1.29E+00	3.40E-05 +/- 2.15E-05

Segment: 2

Detector: DET01 (# 1)

Position: 2

Elapsed Live Time: 112.56 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.096 +/- 0.0047
SE-75	264.65	0.000 +/- 0.0000	0.157 +/- 0.0036
SE-75	279.53	0.000 +/- 0.0000	0.160 +/- 0.0041
SE-75	400.65	0.000 +/- 0.0000	0.197 +/- 0.0057

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.30	1.30E+00 +/- 2.63E-01	3.56E+00	1.94E-05 +/- 1.19E-04
2	49.80	1.07E+01 +/- 1.14E+00	2.71E+00	8.24E-05 +/- 2.12E-04
3	60.16	2.65E+02 +/- 3.67E+00	2.52E+00	1.33E-04 +/- 2.14E-04
4	99.53	9.29E+00 +/- 9.28E-01	2.25E+00	3.10E-04 +/- 7.45E-05
5	103.71	1.55E+00 +/- 9.02E-01	2.23E+00	3.24E-04 +/- 6.04E-05
6	111.73	2.61E+00 +/- 5.40E-01	2.20E+00	3.48E-04 +/- 3.77E-05
M 7	125.95	3.65E+00 +/- 2.82E-01	2.16E+00	3.82E-04 +/- 2.26E-05
m 8	129.98	1.32E+01 +/- 6.03E-01	2.15E+00	3.89E-04 +/- 2.52E-05
9	152.68	8.86E-01 +/- 3.14E-01	2.09E+00	4.18E-04 +/- 4.48E-05
10	171.90	7.13E-01 +/- 2.90E-01	2.05E+00	4.29E-04 +/- 5.11E-05
11	196.65	4.67E-01 +/- 2.86E-01	1.99E+00	4.29E-04 +/- 4.84E-05
12	208.69	3.76E+00 +/- 3.48E-01	1.97E+00	4.25E-04 +/- 4.49E-05
13	264.66	3.11E-01 +/- 1.91E-01	1.86E+00	3.93E-04 +/- 2.52E-05
14	298.00	3.43E-01 +/- 1.72E-01	1.83E+00	3.69E-04 +/- 1.82E-05
15	311.90	8.17E-01 +/- 1.86E-01	1.82E+00	3.58E-04 +/- 1.69E-05
M 16	333.44	1.92E+00 +/- 2.19E-01	1.80E+00	3.42E-04 +/- 1.64E-05
m 17	336.49	8.24E-01 +/- 1.27E-01	1.80E+00	3.40E-04 +/- 1.64E-05
18	345.70	1.36E+00 +/- 1.95E-01	1.79E+00	3.34E-04 +/- 1.66E-05
19	375.77	2.87E+00 +/- 3.01E-01	1.76E+00	3.13E-04 +/- 1.76E-05
M 20	380.88	7.77E-01 +/- 1.34E-01	1.76E+00	3.10E-04 +/- 1.77E-05
m 21	383.55	7.73E-01 +/- 1.30E-01	1.76E+00	3.08E-04 +/- 1.78E-05
22	393.56	1.78E+00 +/- 1.74E-01	1.75E+00	3.01E-04 +/- 1.81E-05
23	413.70	3.93E+00 +/- 2.12E-01	1.73E+00	2.89E-04 +/- 1.85E-05
24	423.24	2.33E-01 +/- 9.58E-02	1.72E+00	2.83E-04 +/- 1.86E-05
25	452.33	2.81E-01 +/- 9.72E-02	1.70E+00	2.67E-04 +/- 1.85E-05
26	662.42	3.26E-01 +/- 6.62E-02	1.56E+00	1.86E-04 +/- 1.15E-05
27	722.01	2.25E-01 +/- 5.18E-02	1.53E+00	1.71E-04 +/- 9.64E-06
28	2236.00	1.00E+02 +/- 1.51E+00	1.29E+00	9.73E-05 +/- 5.41E-05

Segment: 3

Detector: DET01 (# 1)

Position: 3

Elapsed Live Time: 109.90 sec

Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		Sample Transmission
	Energy	Container Transmission	
SE-75	136.00	0.000 +/- 0.0000	0.062 +/- 0.0047
SE-75	264.65	0.000 +/- 0.0000	0.109 +/- 0.0026
SE-75	279.53	0.000 +/- 0.0000	0.115 +/- 0.0032
SE-75	400.65	0.000 +/- 0.0000	0.140 +/- 0.0045

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.24	2.78E+00 +/-	3.62E-01	4.10E+00 3.59E-06 +/- 3.40E-06
2	50.06	4.31E+01 +/-	2.11E+00	3.11E+00 3.90E-05 +/- 1.89E-05
3	60.16	8.07E+02 +/-	1.02E+01	2.88E+00 8.07E-05 +/- 2.79E-05
4	99.47	3.84E+01 +/-	1.35E+00	2.54E+00 2.97E-04 +/- 3.03E-05
5	111.69	5.85E+00 +/-	7.83E-01	2.49E+00 3.54E-04 +/- 2.60E-05
M 6	123.71	2.33E+00 +/-	2.75E-01	2.44E+00 4.00E-04 +/- 2.30E-05
m 7	125.95	1.22E+01 +/-	4.79E-01	2.44E+00 4.08E-04 +/- 2.27E-05
m 8	129.95	3.81E+01 +/-	1.03E+00	2.42E+00 4.20E-04 +/- 2.22E-05
M 9	144.91	1.88E+00 +/-	2.70E-01	2.38E+00 4.56E-04 +/- 2.23E-05
m 10	146.97	1.94E+00 +/-	2.77E-01	2.37E+00 4.60E-04 +/- 2.24E-05
m 11	149.25	2.12E+00 +/-	3.03E-01	2.36E+00 4.64E-04 +/- 2.26E-05
12	161.58	1.98E+00 +/-	4.78E-01	2.32E+00 4.81E-04 +/- 2.38E-05
13	190.14	9.42E-01 +/-	3.28E-01	2.24E+00 4.95E-04 +/- 2.59E-05
14	196.16	8.18E-01 +/-	3.78E-01	2.23E+00 4.95E-04 +/- 2.60E-05
15	204.20	4.38E+00 +/-	3.79E-01	2.20E+00 4.93E-04 +/- 2.59E-05
16	208.68	5.23E+00 +/-	6.71E-01	2.19E+00 4.92E-04 +/- 2.59E-05
17	256.09	6.01E-01 +/-	2.71E-01	2.08E+00 4.58E-04 +/- 2.28E-05
18	300.10	9.50E-01 +/-	2.87E-01	2.01E+00 4.16E-04 +/- 1.88E-05
19	311.90	1.38E+00 +/-	2.44E-01	2.00E+00 4.04E-04 +/- 1.79E-05
20	323.77	9.62E-01 +/-	2.65E-01	1.99E+00 3.93E-04 +/- 1.70E-05
M 21	333.41	5.11E+00 +/-	3.50E-01	1.98E+00 3.84E-04 +/- 1.63E-05
m 22	336.36	2.76E+00 +/-	2.36E-01	1.98E+00 3.81E-04 +/- 1.61E-05
23	345.76	3.96E+00 +/-	2.99E-01	1.97E+00 3.72E-04 +/- 1.56E-05
24	369.04	1.25E+00 +/-	3.20E-01	1.95E+00 3.52E-04 +/- 1.43E-05
25	375.70	8.48E+00 +/-	4.79E-01	1.94E+00 3.46E-04 +/- 1.41E-05
M 26	380.91	1.48E+00 +/-	1.80E-01	1.94E+00 3.42E-04 +/- 1.38E-05
m 27	383.50	1.88E+00 +/-	2.06E-01	1.94E+00 3.40E-04 +/- 1.37E-05
28	393.63	4.21E+00 +/-	2.54E-01	1.93E+00 3.31E-04 +/- 1.34E-05
29	413.70	1.07E+01 +/-	3.62E-01	1.91E+00 3.16E-04 +/- 1.28E-05
30	423.30	9.08E-01 +/-	1.43E-01	1.90E+00 3.09E-04 +/- 1.26E-05
31	452.11	1.31E+00 +/-	1.63E-01	1.87E+00 2.89E-04 +/- 1.20E-05
32	620.00	1.19E-01 +/-	7.82E-02	1.72E+00 2.08E-04 +/- 1.01E-05

33	662.42	1.10E+00	+/-	1.20E-01	1.69E+00	1.95E-04	+/-	9.62E-06
34	722.01	5.69E-01	+/-	7.97E-02	1.66E+00	1.79E-04	+/-	8.87E-06
35	1112.12	2.76E-02	+/-	1.59E-02	1.50E+00	1.27E-04	+/-	4.65E-06
36	1408.01	9.19E-03	+/-	9.19E-03	1.43E+00	1.15E-04	+/-	7.14E-06
37	2236.00	1.00E+02	+/-	1.54E+00	1.35E+00	1.32E-04	+/-	3.24E-05

Segment: 4

Detector: DET01 (# 1)

Position: 4

Elapsed Live Time: 109.46 sec

Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.066 +/- 0.0047
SE-75	264.65	0.000 +/- 0.0000	0.173 +/- 0.0039
SE-75	279.53	0.000 +/- 0.0000	0.175 +/- 0.0045
SE-75	400.65	0.000 +/- 0.0000	0.228 +/- 0.0065

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.91	1.60E+00	+/- 2.61E-01	4.10E+00 1.12E-07 +/- 6.87E-07
2	50.13	4.50E+01	+/- 2.21E+00	3.04E+00 1.07E-05 +/- 2.67E-05
3	60.16	8.60E+02	+/- 1.08E+01	2.82E+00 3.62E-05 +/- 5.76E-05
4	99.46	4.44E+01	+/- 1.49E+00	2.49E+00 2.64E-04 +/- 6.32E-05
5	111.68	6.66E+00	+/- 8.39E-01	2.44E+00 3.35E-04 +/- 3.62E-05
6	115.59	2.28E+00	+/- 1.00E+00	2.42E+00 3.54E-04 +/- 2.93E-05
M 7	123.54	3.85E+00	+/- 3.16E-01	2.40E+00 3.90E-04 +/- 2.30E-05
m 8	125.95	1.66E+01	+/- 5.57E-01	2.39E+00 3.99E-04 +/- 2.37E-05
m 9	129.95	4.58E+01	+/- 1.14E+00	2.38E+00 4.14E-04 +/- 2.68E-05
10	148.57	2.23E+00	+/- 5.34E-01	2.28E+00 4.63E-04 +/- 4.66E-05
11	161.51	1.34E+00	+/- 5.05E-01	2.21E+00 4.81E-04 +/- 5.49E-05
12	171.31	1.89E+00	+/- 5.03E-01	2.16E+00 4.88E-04 +/- 5.76E-05
13	179.73	5.79E-01	+/- 3.30E-01	2.12E+00 4.90E-04 +/- 5.79E-05
14	196.43	8.03E-01	+/- 4.49E-01	2.04E+00 4.87E-04 +/- 5.48E-05
15	208.68	1.14E+01	+/- 6.87E-01	2.00E+00 4.80E-04 +/- 5.05E-05
16	256.16	1.15E+00	+/- 3.65E-01	1.83E+00 4.36E-04 +/- 3.05E-05
17	268.49	5.89E-01	+/- 3.15E-01	1.81E+00 4.23E-04 +/- 2.63E-05
18	300.10	1.54E+00	+/- 3.24E-01	1.78E+00 3.89E-04 +/- 1.89E-05
19	311.90	2.17E+00	+/- 2.63E-01	1.76E+00 3.77E-04 +/- 1.75E-05
20	323.72	1.73E+00	+/- 3.15E-01	1.75E+00 3.66E-04 +/- 1.68E-05
M 21	333.42	5.59E+00	+/- 3.55E-01	1.74E+00 3.57E-04 +/- 1.65E-05
m 22	336.28	3.84E+00	+/- 2.73E-01	1.73E+00 3.54E-04 +/- 1.65E-05
23	345.67	4.62E+00	+/- 2.82E-01	1.72E+00 3.46E-04 +/- 1.65E-05
24	368.86	9.66E-01	+/- 3.60E-01	1.70E+00 3.26E-04 +/- 1.70E-05
25	375.73	9.38E+00	+/- 5.21E-01	1.69E+00 3.21E-04 +/- 1.71E-05

M 26	380.91	1.88E+00	+/-	2.13E-01	1.68E+00	3.17E-04	+/-	1.72E-05
m 27	383.49	2.58E+00	+/-	2.52E-01	1.68E+00	3.15E-04	+/-	1.73E-05
28	393.59	4.79E+00	+/-	2.79E-01	1.67E+00	3.08E-04	+/-	1.75E-05
29	413.70	1.28E+01	+/-	4.13E-01	1.65E+00	2.94E-04	+/-	1.78E-05
30	423.20	7.18E-01	+/-	1.56E-01	1.65E+00	2.87E-04	+/-	1.79E-05
31	452.27	1.60E+00	+/-	1.56E-01	1.62E+00	2.70E-04	+/-	1.78E-05
32	512.07	3.74E-01	+/-	1.10E-01	1.58E+00	2.40E-04	+/-	1.65E-05
33	619.73	2.06E-01	+/-	7.74E-02	1.52E+00	2.02E-04	+/-	1.27E-05
34	641.65	1.02E-01	+/-	5.09E-02	1.51E+00	1.96E-04	+/-	1.19E-05
35	653.45	2.01E-01	+/-	5.96E-02	1.51E+00	1.93E-04	+/-	1.16E-05
36	662.42	1.41E+00	+/-	1.28E-01	1.50E+00	1.90E-04	+/-	1.13E-05
37	689.47	9.55E-02	+/-	6.01E-02	1.49E+00	1.84E-04	+/-	1.05E-05
38	722.01	7.10E-01	+/-	8.83E-02	1.48E+00	1.77E-04	+/-	9.59E-06
39	778.90	3.84E-02	+/-	2.43E-02	1.45E+00	1.66E-04	+/-	8.40E-06
40	964.13	5.55E-02	+/-	2.27E-02	1.40E+00	1.40E-04	+/-	6.55E-06
41	1001.03	2.77E-02	+/-	1.60E-02	1.39E+00	1.37E-04	+/-	6.33E-06
42	1112.12	2.77E-02	+/-	1.60E-02	1.36E+00	1.26E-04	+/-	5.66E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	1275.95	1.27E-01 +/- 3.77E-02	1.34E+00	1.14E-04 +/- 5.33E-06
44	1408.01	3.70E-02 +/- 1.85E-02	1.32E+00	1.06E-04 +/- 7.05E-06
45	2236.00	1.00E+02 +/- 1.54E+00	1.26E+00	7.00E-05 +/- 3.84E-05

Segment: 5 Detector: DET01 (# 1) Position: 5

Elapsed Live Time: 111.20 sec Elapsed Real Time: 115.00 sec

TRANSMISSION		RESULTS
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.046 +/- 0.0046
SE-75	264.65	0.000 +/- 0.0000	0.142 +/- 0.0033
SE-75	279.53	0.000 +/- 0.0000	0.150 +/- 0.0039
SE-75	400.65	0.000 +/- 0.0000	0.204 +/- 0.0059

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.04	1.04E+00 +/- 2.16E-01	4.10E+00	2.76E-07 +/- 1.82E-06
2	50.16	3.20E+01 +/- 1.82E+00	3.39E+00	1.62E-05 +/- 4.36E-05
3	60.16	5.10E+02 +/- 6.61E+00	3.14E+00	4.79E-05 +/- 8.23E-05
4	99.46	2.62E+01 +/- 1.16E+00	2.74E+00	2.78E-04 +/- 7.08E-05
5	111.64	2.48E+00 +/- 6.86E-01	2.68E+00	3.41E-04 +/- 3.83E-05
6	115.48	1.42E+00 +/- 7.83E-01	2.67E+00	3.58E-04 +/- 3.03E-05
M 7	123.70	2.77E+00 +/- 2.69E-01	2.64E+00	3.89E-04 +/- 2.28E-05
m 8	125.97	1.11E+01 +/- 4.52E-01	2.63E+00	3.97E-04 +/- 2.37E-05
m 9	129.96	2.83E+01 +/- 8.51E-01	2.61E+00	4.09E-04 +/- 2.72E-05
M 10	144.91	1.52E+00 +/- 2.36E-01	2.52E+00	4.43E-04 +/- 4.49E-05
m 11	147.05	1.59E+00 +/- 2.46E-01	2.50E+00	4.46E-04 +/- 4.70E-05
m 12	149.27	2.09E+00 +/- 2.84E-01	2.48E+00	4.49E-04 +/- 4.90E-05
13	161.34	8.67E-01 +/- 3.48E-01	2.40E+00	4.62E-04 +/- 5.66E-05
14	171.47	6.75E-01 +/- 3.47E-01	2.33E+00	4.66E-04 +/- 5.92E-05
15	196.43	7.22E-01 +/- 3.11E-01	2.20E+00	4.63E-04 +/- 5.58E-05
16	208.67	8.71E+00 +/- 5.37E-01	2.14E+00	4.56E-04 +/- 5.12E-05
17	300.10	6.65E-01 +/- 2.65E-01	1.86E+00	3.72E-04 +/- 1.87E-05
18	311.90	1.57E+00 +/- 2.29E-01	1.84E+00	3.62E-04 +/- 1.74E-05
M 19	333.42	3.61E+00 +/- 2.85E-01	1.81E+00	3.43E-04 +/- 1.67E-05
m 20	336.34	2.19E+00 +/- 1.98E-01	1.80E+00	3.41E-04 +/- 1.67E-05
21	345.68	2.41E+00 +/- 2.08E-01	1.79E+00	3.33E-04 +/- 1.69E-05
22	357.09	2.50E-01 +/- 1.61E-01	1.78E+00	3.25E-04 +/- 1.72E-05

23	369.15	4.76E-01	+/-	2.78E-01	1.76E+00	3.16E-04	+/-	1.77E-05
24	375.76	5.08E+00	+/-	3.89E-01	1.75E+00	3.11E-04	+/-	1.79E-05
M 25	380.93	1.16E+00	+/-	1.65E-01	1.75E+00	3.07E-04	+/-	1.81E-05
m 26	383.54	1.14E+00	+/-	1.55E-01	1.74E+00	3.06E-04	+/-	1.82E-05
27	393.62	2.74E+00	+/-	2.14E-01	1.73E+00	2.99E-04	+/-	1.85E-05
28	413.70	6.58E+00	+/-	2.90E-01	1.71E+00	2.86E-04	+/-	1.90E-05
29	443.98	2.03E-01	+/-	8.05E-02	1.69E+00	2.69E-04	+/-	1.92E-05
30	452.17	9.10E-01	+/-	1.15E-01	1.68E+00	2.65E-04	+/-	1.91E-05
31	619.54	1.49E-01	+/-	5.84E-02	1.57E+00	2.01E-04	+/-	1.37E-05
32	662.42	8.44E-01	+/-	1.03E-01	1.55E+00	1.90E-04	+/-	1.21E-05
33	722.01	1.72E-01	+/-	6.54E-02	1.52E+00	1.77E-04	+/-	1.01E-05
34	1085.91	9.03E-03	+/-	9.03E-03	1.40E+00	1.26E-04	+/-	5.69E-06
35	1275.84	7.08E-02	+/-	3.44E-02	1.36E+00	1.10E-04	+/-	5.20E-06
36	2236.00	1.00E+02	+/-	1.53E+00	1.28E+00	5.76E-05	+/-	3.29E-05

Segment: 6

Detector: DET01 (# 1)

Position: 6

Elapsed Live Time: 111.79 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.063 +/- 0.0050
SE-75	264.65	0.000 +/- 0.0000	0.170 +/- 0.0038
SE-75	279.53	0.000 +/- 0.0000	0.175 +/- 0.0044
SE-75	400.65	0.000 +/- 0.0000	0.228 +/- 0.0064

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency				
1	32.11	1.29E+00	+/-	2.45E-01	4.10E+00	4.81E-07	+/-	3.01E-06
2	50.33	2.12E+01	+/-	1.43E+00	3.09E+00	2.25E-05	+/-	5.74E-05
3	60.16	4.17E+02	+/-	5.49E+00	2.87E+00	6.08E-05	+/-	9.94E-05
4	99.48	2.20E+01	+/-	1.01E+00	2.53E+00	3.07E-04	+/-	7.46E-05
5	111.71	1.86E+00	+/-	6.13E-01	2.48E+00	3.69E-04	+/-	3.99E-05
M 6	123.60	2.29E+00	+/-	2.43E-01	2.44E+00	4.14E-04	+/-	2.39E-05
m 7	125.92	8.64E+00	+/-	3.97E-01	2.43E+00	4.21E-04	+/-	2.46E-05
m 8	129.95	2.03E+01	+/-	7.10E-01	2.42E+00	4.33E-04	+/-	2.80E-05
M 9	144.91	1.01E+00	+/-	1.97E-01	2.34E+00	4.64E-04	+/-	4.50E-05
m 10	147.14	1.32E+00	+/-	2.29E-01	2.32E+00	4.67E-04	+/-	4.72E-05
m 11	149.22	1.40E+00	+/-	2.40E-01	2.31E+00	4.70E-04	+/-	4.89E-05
12	204.18	2.30E+00	+/-	2.71E-01	2.03E+00	4.75E-04	+/-	5.27E-05
13	208.68	7.24E+00	+/-	3.89E-01	2.01E+00	4.72E-04	+/-	5.09E-05
14	264.66	2.96E-01	+/-	2.05E-01	1.82E+00	4.25E-04	+/-	2.79E-05
15	300.10	5.36E-01	+/-	1.82E-01	1.78E+00	3.93E-04	+/-	1.94E-05
16	311.90	1.30E+00	+/-	1.98E-01	1.76E+00	3.82E-04	+/-	1.81E-05

M 17	333.41	2.30E+00	+/-	2.37E-01	1.74E+00	3.65E-04	+/-	1.73E-05
m 18	336.29	1.35E+00	+/-	1.59E-01	1.73E+00	3.62E-04	+/-	1.73E-05
19	345.77	1.55E+00	+/-	1.83E-01	1.72E+00	3.55E-04	+/-	1.74E-05
20	369.01	7.36E-01	+/-	2.27E-01	1.70E+00	3.38E-04	+/-	1.82E-05
21	375.78	3.50E+00	+/-	3.33E-01	1.69E+00	3.33E-04	+/-	1.84E-05
M 22	380.70	8.86E-01	+/-	1.42E-01	1.69E+00	3.30E-04	+/-	1.86E-05
m 23	383.46	7.98E-01	+/-	1.27E-01	1.68E+00	3.28E-04	+/-	1.87E-05
24	393.72	1.72E+00	+/-	1.77E-01	1.67E+00	3.22E-04	+/-	1.90E-05
25	413.70	4.00E+00	+/-	2.09E-01	1.66E+00	3.09E-04	+/-	1.95E-05
26	423.44	2.02E-01	+/-	1.01E-01	1.65E+00	3.04E-04	+/-	1.96E-05
27	452.13	4.36E-01	+/-	9.25E-02	1.63E+00	2.88E-04	+/-	1.97E-05
28	511.37	3.22E-01	+/-	8.46E-02	1.59E+00	2.61E-04	+/-	1.85E-05
29	662.42	4.73E-01	+/-	7.76E-02	1.50E+00	2.10E-04	+/-	1.26E-05
30	722.01	2.84E-01	+/-	6.09E-02	1.48E+00	1.95E-04	+/-	1.05E-05
31	2236.00	1.00E+02	+/-	1.52E+00	1.26E+00	4.34E-05	+/-	2.42E-05

Segment: 7

Detector: DET01 (# 1)

Position: 7

Elapsed Live Time: 111.43 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.125 +/- 0.0064
SE-75	264.65	0.000 +/- 0.0000	0.250 +/- 0.0055
SE-75	279.53	0.000 +/- 0.0000	0.256 +/- 0.0062
SE-75	400.65	0.000 +/- 0.0000	0.311 +/- 0.0083

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency				
1	31.81	1.75E+00	+/-	2.84E-01	3.26E+00	4.32E-09	+/-	2.51E-08
2	50.06	1.46E+01	+/-	1.32E+00	2.47E+00	2.88E-06	+/-	6.78E-06
3	60.17	4.93E+02	+/-	6.41E+00	2.32E+00	1.60E-05	+/-	2.39E-05
4	99.44	2.37E+01	+/-	1.10E+00	2.08E+00	2.44E-04	+/-	5.51E-05
5	111.68	1.04E+00	+/-	7.16E-01	2.05E+00	3.35E-04	+/-	3.49E-05
6	115.39	3.01E+00	+/-	6.80E-01	2.04E+00	3.60E-04	+/-	2.93E-05
M 7	123.69	1.98E+00	+/-	2.43E-01	2.02E+00	4.11E-04	+/-	2.39E-05
m 8	125.93	8.36E+00	+/-	3.86E-01	2.01E+00	4.24E-04	+/-	2.46E-05
m 9	129.97	2.64E+01	+/-	8.25E-01	2.00E+00	4.45E-04	+/-	2.77E-05
10	148.57	1.51E+00	+/-	3.95E-01	1.94E+00	5.16E-04	+/-	4.85E-05
M 11	161.50	1.25E+00	+/-	2.95E-01	1.89E+00	5.43E-04	+/-	5.77E-05
m 12	164.97	9.06E-01	+/-	2.46E-01	1.88E+00	5.48E-04	+/-	5.91E-05
13	172.00	6.63E-01	+/-	4.32E-01	1.86E+00	5.55E-04	+/-	6.09E-05
14	208.69	6.46E+00	+/-	4.84E-01	1.75E+00	5.47E-04	+/-	5.32E-05
15	256.24	4.25E-01	+/-	1.69E-01	1.64E+00	4.90E-04	+/-	3.17E-05

16	268.17	7.74E-01	+/-	3.06E-01	1.61E+00	4.74E-04	+/-	2.74E-05
17	300.10	1.09E+00	+/-	2.18E-01	1.59E+00	4.31E-04	+/-	1.99E-05
18	311.90	1.40E+00	+/-	2.50E-01	1.58E+00	4.17E-04	+/-	1.86E-05
M 19	333.47	2.71E+00	+/-	2.58E-01	1.56E+00	3.91E-04	+/-	1.76E-05
m 20	336.25	1.31E+00	+/-	1.57E-01	1.56E+00	3.88E-04	+/-	1.76E-05
21	345.68	2.17E+00	+/-	1.74E-01	1.55E+00	3.78E-04	+/-	1.76E-05
22	369.20	1.15E+00	+/-	1.74E-01	1.53E+00	3.55E-04	+/-	1.81E-05
23	375.72	4.39E+00	+/-	3.78E-01	1.53E+00	3.48E-04	+/-	1.82E-05
M 24	380.97	9.30E-01	+/-	1.46E-01	1.52E+00	3.44E-04	+/-	1.83E-05
m 25	383.40	1.05E+00	+/-	1.51E-01	1.52E+00	3.42E-04	+/-	1.84E-05
26	393.69	2.27E+00	+/-	1.86E-01	1.51E+00	3.33E-04	+/-	1.86E-05
27	413.70	5.72E+00	+/-	2.63E-01	1.50E+00	3.17E-04	+/-	1.88E-05
28	423.30	2.94E-01	+/-	8.37E-02	1.50E+00	3.10E-04	+/-	1.88E-05
29	443.98	2.50E-01	+/-	8.74E-02	1.48E+00	2.95E-04	+/-	1.87E-05
30	452.29	6.98E-01	+/-	1.07E-01	1.48E+00	2.90E-04	+/-	1.86E-05
31	662.42	5.10E-01	+/-	9.00E-02	1.39E+00	2.03E-04	+/-	1.17E-05
32	722.01	3.35E-01	+/-	5.86E-02	1.37E+00	1.89E-04	+/-	9.99E-06
33	1001.03	8.99E-03	+/-	8.99E-03	1.30E+00	1.45E-04	+/-	6.33E-06
34	1112.12	4.12E-02	+/-	2.61E-02	1.28E+00	1.32E-04	+/-	5.60E-06
35	2236.00	1.00E+02	+/-	1.52E+00	1.20E+00	5.07E-05	+/-	2.69E-05

Segment: 8 Detector: DET01 (# 1) Position: 8

Elapsed Live Time: 110.02 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.269 +/- 0.0094
SE-75	264.65	0.000 +/- 0.0000	0.358 +/- 0.0079
SE-75	279.53	0.000 +/- 0.0000	0.358 +/- 0.0084
SE-75	400.65	0.000 +/- 0.0000	0.413 +/- 0.0106

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.99	1.54E+00	+/- 2.52E-01	2.28E+00 7.57E-06 +/- 7.38E-06
2	50.12	3.76E+01	+/- 2.04E+00	1.85E+00 5.98E-05 +/- 2.94E-05
3	60.16	9.16E+02	+/- 1.15E+01	1.76E+00 1.10E-04 +/- 3.84E-05
4	99.48	2.96E+01	+/- 1.22E+00	1.63E+00 3.25E-04 +/- 3.30E-05
5	111.68	1.80E+00	+/- 6.89E-01	1.61E+00 3.75E-04 +/- 2.73E-05
6	115.39	1.93E+00	+/- 7.84E-01	1.61E+00 3.88E-04 +/- 2.58E-05
M 7	123.79	3.41E+00	+/- 2.72E-01	1.59E+00 4.13E-04 +/- 2.35E-05
m 8	125.95	1.33E+01	+/- 5.00E-01	1.59E+00 4.19E-04 +/- 2.31E-05
m 9	129.95	2.47E+01	+/- 7.70E-01	1.59E+00 4.29E-04 +/- 2.26E-05
M 10	144.82	1.24E+00	+/- 2.08E-01	1.57E+00 4.57E-04 +/- 2.25E-05

m 11	147.12	2.23E+00	+/-	2.78E-01	1.56E+00	4.60E-04	+/-	2.27E-05
m 12	149.31	1.92E+00	+/-	2.57E-01	1.56E+00	4.63E-04	+/-	2.29E-05
13	161.66	7.28E-01	+/-	4.17E-01	1.55E+00	4.75E-04	+/-	2.42E-05
14	195.97	6.57E-01	+/-	3.35E-01	1.51E+00	4.79E-04	+/-	2.62E-05
15	204.20	2.05E+00	+/-	2.95E-01	1.50E+00	4.76E-04	+/-	2.61E-05
16	208.69	6.80E+00	+/-	4.80E-01	1.49E+00	4.74E-04	+/-	2.60E-05
17	255.99	3.54E-01	+/-	2.34E-01	1.45E+00	4.39E-04	+/-	2.28E-05
18	300.10	7.67E-01	+/-	2.47E-01	1.43E+00	3.99E-04	+/-	1.88E-05
19	311.90	1.58E+00	+/-	2.08E-01	1.42E+00	3.88E-04	+/-	1.78E-05
20	323.28	6.34E-01	+/-	1.98E-01	1.41E+00	3.78E-04	+/-	1.70E-05
M 21	333.36	2.45E+00	+/-	2.37E-01	1.41E+00	3.69E-04	+/-	1.62E-05
m 22	336.28	1.90E+00	+/-	1.92E-01	1.41E+00	3.67E-04	+/-	1.60E-05
23	345.71	1.61E+00	+/-	2.14E-01	1.40E+00	3.59E-04	+/-	1.54E-05
24	369.15	8.92E-01	+/-	2.33E-01	1.39E+00	3.39E-04	+/-	1.41E-05
25	375.74	4.02E+00	+/-	3.44E-01	1.39E+00	3.34E-04	+/-	1.38E-05
M 26	380.99	7.48E-01	+/-	1.46E-01	1.38E+00	3.30E-04	+/-	1.36E-05
m 27	383.54	6.59E-01	+/-	1.26E-01	1.38E+00	3.28E-04	+/-	1.35E-05
28	393.66	2.13E+00	+/-	1.81E-01	1.38E+00	3.21E-04	+/-	1.31E-05
29	413.70	5.86E+00	+/-	2.62E-01	1.37E+00	3.06E-04	+/-	1.25E-05
30	423.31	1.48E-01	+/-	1.01E-01	1.36E+00	3.00E-04	+/-	1.22E-05
31	443.98	2.33E-01	+/-	9.38E-02	1.36E+00	2.87E-04	+/-	1.18E-05
32	452.39	6.01E-01	+/-	1.18E-01	1.35E+00	2.82E-04	+/-	1.16E-05
33	662.42	6.72E-01	+/-	9.44E-02	1.29E+00	1.93E-04	+/-	9.41E-06
34	722.01	3.47E-01	+/-	6.94E-02	1.27E+00	1.78E-04	+/-	8.71E-06
35	1001.03	9.14E-03	+/-	9.14E-03	1.22E+00	1.35E-04	+/-	5.36E-06
36	2236.00	1.00E+02	+/-	1.54E+00	1.15E+00	1.19E-04	+/-	2.92E-05

Segment: 9 Detector: DET01 (# 1) Position: 9

Elapsed Live Time: 110.49 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.274 +/- 0.0095
SE-75	264.65	0.000 +/- 0.0000	0.362 +/- 0.0079
SE-75	279.53	0.000 +/- 0.0000	0.369 +/- 0.0086
SE-75	400.65	0.000 +/- 0.0000	0.417 +/- 0.0107

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.98	1.21E+00 +/- 2.83E-01	2.26E+00	5.98E-09 +/- 3.61E-08
2	50.20	3.37E+01 +/- 1.88E+00	1.83E+00	3.18E-06 +/- 7.80E-06
3	60.16	8.74E+02 +/- 1.09E+01	1.75E+00	1.65E-05 +/- 2.58E-05
4	99.56	3.27E+01 +/- 1.01E+00	1.62E+00	2.37E-04 +/- 5.55E-05

5	103.65	2.84E+01	+/-	9.54E-01	1.61E+00	2.67E-04	+/-	4.88E-05
M	111.73	4.79E+00	+/-	4.65E-01	1.60E+00	3.22E-04	+/-	3.46E-05
m	115.16	4.58E+00	+/-	4.39E-01	1.60E+00	3.44E-04	+/-	2.93E-05
M	123.77	2.76E+00	+/-	2.39E-01	1.59E+00	3.93E-04	+/-	2.33E-05
m	125.96	1.14E+01	+/-	4.79E-01	1.58E+00	4.05E-04	+/-	2.41E-05
m	129.98	1.29E+01	+/-	5.19E-01	1.58E+00	4.24E-04	+/-	2.73E-05
11	148.57	3.06E+00	+/-	4.53E-01	1.55E+00	4.88E-04	+/-	4.79E-05
12	165.19	1.02E+00	+/-	3.42E-01	1.53E+00	5.16E-04	+/-	5.82E-05
13	208.67	6.06E+00	+/-	3.90E-01	1.49E+00	5.11E-04	+/-	5.15E-05
14	300.10	4.34E-01	+/-	1.44E-01	1.41E+00	3.97E-04	+/-	1.90E-05
15	311.90	1.70E+00	+/-	1.78E-01	1.41E+00	3.83E-04	+/-	1.78E-05
16	323.14	6.29E-01	+/-	1.65E-01	1.40E+00	3.70E-04	+/-	1.72E-05
M	333.44	1.44E+00	+/-	1.77E-01	1.40E+00	3.59E-04	+/-	1.71E-05
m	336.21	1.30E+00	+/-	1.67E-01	1.40E+00	3.56E-04	+/-	1.71E-05
19	345.67	8.73E-01	+/-	1.81E-01	1.39E+00	3.46E-04	+/-	1.72E-05
20	368.97	7.57E-01	+/-	1.75E-01	1.38E+00	3.24E-04	+/-	1.77E-05
21	375.76	2.62E+00	+/-	2.70E-01	1.38E+00	3.18E-04	+/-	1.78E-05
M	380.96	4.65E-01	+/-	1.25E-01	1.38E+00	3.14E-04	+/-	1.79E-05
m	383.88	3.26E-01	+/-	9.08E-02	1.38E+00	3.11E-04	+/-	1.80E-05
24	393.71	9.50E-01	+/-	1.38E-01	1.37E+00	3.03E-04	+/-	1.81E-05
25	413.70	2.60E+00	+/-	1.76E-01	1.36E+00	2.88E-04	+/-	1.83E-05
26	423.37	1.49E-01	+/-	7.02E-02	1.36E+00	2.82E-04	+/-	1.83E-05
27	443.98	8.61E-02	+/-	6.60E-02	1.35E+00	2.68E-04	+/-	1.82E-05
28	452.20	2.62E-01	+/-	7.88E-02	1.35E+00	2.63E-04	+/-	1.81E-05
29	662.42	5.59E-01	+/-	8.34E-02	1.28E+00	1.84E-04	+/-	1.12E-05
30	722.01	2.45E-01	+/-	7.13E-02	1.27E+00	1.72E-04	+/-	9.44E-06
31	1085.91	3.61E-02	+/-	1.80E-02	1.21E+00	1.27E-04	+/-	5.58E-06
32	1112.12	1.80E-02	+/-	1.28E-02	1.21E+00	1.25E-04	+/-	5.44E-06
33	2236.00	1.00E+02	+/-	1.53E+00	1.15E+00	6.12E-05	+/-	3.31E-05
34	2295.42	1.02E-01	+/-	5.00E-02	1.15E+00	5.85E-05	+/-	3.46E-05

Segment: 10

Detector: DET01

(# 1)

Position: 10

Elapsed Live Time: 112.12 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION		Sample Transmission
	Energy	Container Transmission	
SE-75	136.00	0.000 +/- 0.0000	0.387 +/- 0.0119
SE-75	264.65	0.000 +/- 0.0000	0.463 +/- 0.0100
SE-75	279.53	0.000 +/- 0.0000	0.471 +/- 0.0108
SE-75	400.65	0.000 +/- 0.0000	0.510 +/- 0.0127

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.23	1.02E+00 +/-	2.52E-01	1.86E+00 1.71E-05 +/- 1.68E-05
2	50.08	2.85E+01 +/-	1.77E+00	1.58E+00 8.43E-05 +/- 4.22E-05
3	60.17	4.66E+02 +/-	6.05E+00	1.53E+00 1.37E-04 +/- 4.88E-05
4	99.48	1.40E+01 +/-	8.27E-01	1.44E+00 3.30E-04 +/- 3.40E-05
5	115.31	2.34E+00 +/-	4.71E-01	1.42E+00 3.82E-04 +/- 2.58E-05
M 6	123.63	1.61E+00 +/-	1.90E-01	1.41E+00 4.03E-04 +/- 2.32E-05
m 7	125.95	6.27E+00 +/-	3.39E-01	1.41E+00 4.08E-04 +/- 2.27E-05
m 8	129.98	1.11E+01 +/-	4.98E-01	1.41E+00 4.16E-04 +/- 2.21E-05
M 9	144.71	5.41E-01 +/-	1.42E-01	1.40E+00 4.39E-04 +/- 2.19E-05
m 10	147.04	7.02E-01 +/-	1.64E-01	1.39E+00 4.42E-04 +/- 2.20E-05
m 11	149.28	5.66E-01 +/-	1.47E-01	1.39E+00 4.44E-04 +/- 2.22E-05
12	204.24	8.80E-01 +/-	1.81E-01	1.35E+00 4.57E-04 +/- 2.52E-05
13	208.70	3.38E+00 +/-	3.37E-01	1.35E+00 4.56E-04 +/- 2.51E-05
14	300.10	3.70E-01 +/-	1.69E-01	1.31E+00 3.96E-04 +/- 1.86E-05
15	311.90	1.21E+00 +/-	1.57E-01	1.30E+00 3.87E-04 +/- 1.76E-05
M 16	333.31	1.03E+00 +/-	1.57E-01	1.30E+00 3.71E-04 +/- 1.62E-05
m 17	336.15	5.92E-01 +/-	1.14E-01	1.30E+00 3.69E-04 +/- 1.60E-05
18	345.72	6.71E-01 +/-	1.35E-01	1.29E+00 3.61E-04 +/- 1.54E-05
19	369.22	3.60E-01 +/-	1.58E-01	1.29E+00 3.45E-04 +/- 1.43E-05
20	375.79	1.88E+00 +/-	2.10E-01	1.28E+00 3.40E-04 +/- 1.40E-05
M 21	380.64	1.73E-01 +/-	7.02E-02	1.28E+00 3.37E-04 +/- 1.38E-05
m 22	383.51	2.56E-01 +/-	8.58E-02	1.28E+00 3.35E-04 +/- 1.37E-05
23	393.68	7.98E-01 +/-	1.14E-01	1.28E+00 3.28E-04 +/- 1.34E-05
24	413.70	2.06E+00 +/-	1.61E-01	1.27E+00 3.15E-04 +/- 1.29E-05
25	452.33	1.45E-01 +/-	6.60E-02	1.26E+00 2.92E-04 +/- 1.22E-05
26	662.42	3.98E-01 +/-	5.95E-02	1.21E+00 2.06E-04 +/- 1.03E-05
27	722.01	2.32E-01 +/-	4.95E-02	1.20E+00 1.89E-04 +/- 9.55E-06
28	1001.03	5.31E-02 +/-	2.17E-02	1.17E+00 1.41E-04 +/- 5.67E-06
29	1085.91	5.25E-02 +/-	3.16E-02	1.16E+00 1.31E-04 +/- 4.92E-06
30	1408.01	1.77E-02 +/-	1.25E-02	1.14E+00 1.09E-04 +/- 6.83E-06
31	2236.00	1.00E+02 +/-	1.51E+00	1.11E+00 9.04E-05 +/- 2.29E-05

Segment: 11

Detector: DET01

(# 1)

Position: 11

Elapsed Live Time: 112.67 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.331 +/- 0.0102
SE-75	264.65	0.000 +/- 0.0000	0.434 +/- 0.0094
SE-75	279.53	0.000 +/- 0.0000	0.439 +/- 0.0100
SE-75	400.65	0.000 +/- 0.0000	0.491 +/- 0.0122

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.14	7.55E-01 +/- 1.67E-01	2.03E+00	1.32E-03 +/- 8.49E-03
2	50.09	2.07E+01 +/- 1.46E+00	1.70E+00	5.99E-04 +/- 1.59E-03
3	60.17	3.28E+02 +/- 4.40E+00	1.63E+00	5.03E-04 +/- 8.47E-04
4	99.43	1.12E+01 +/- 7.30E-01	1.52E+00	4.09E-04 +/- 1.03E-04
5	111.69	1.76E+00 +/- 4.40E-01	1.50E+00	4.03E-04 +/- 4.47E-05
M 6	125.99	4.49E+00 +/- 2.82E-01	1.49E+00	4.00E-04 +/- 2.37E-05
m 7	129.98	1.13E+01 +/- 5.25E-01	1.48E+00	3.99E-04 +/- 2.64E-05
M 8	144.89	6.91E-01 +/- 1.39E-01	1.47E+00	3.98E-04 +/- 3.98E-05
m 9	147.06	8.26E-01 +/- 1.53E-01	1.46E+00	3.97E-04 +/- 4.13E-05
m 10	149.36	1.04E+00 +/- 1.76E-01	1.46E+00	3.97E-04 +/- 4.28E-05
M 11	161.91	6.03E-01 +/- 1.85E-01	1.45E+00	3.96E-04 +/- 4.81E-05
m 12	165.10	3.78E-01 +/- 1.41E-01	1.44E+00	3.95E-04 +/- 4.88E-05
13	208.67	3.06E+00 +/- 3.08E-01	1.40E+00	3.88E-04 +/- 4.34E-05
M 14	298.68	1.49E-01 +/- 7.13E-02	1.34E+00	3.58E-04 +/- 1.82E-05
m 15	300.83	1.58E-01 +/- 7.53E-02	1.33E+00	3.57E-04 +/- 1.79E-05
16	311.90	1.10E+00 +/- 1.57E-01	1.33E+00	3.53E-04 +/- 1.69E-05
M 17	333.55	1.02E+00 +/- 1.49E-01	1.32E+00	3.43E-04 +/- 1.63E-05
m 18	336.21	6.61E-01 +/- 1.11E-01	1.32E+00	3.42E-04 +/- 1.63E-05
19	345.82	1.14E+00 +/- 1.32E-01	1.32E+00	3.38E-04 +/- 1.66E-05
20	369.06	2.33E-01 +/- 1.06E-01	1.31E+00	3.28E-04 +/- 1.76E-05
21	375.76	1.52E+00 +/- 2.17E-01	1.30E+00	3.25E-04 +/- 1.79E-05
M 22	380.96	3.57E-01 +/- 9.18E-02	1.30E+00	3.23E-04 +/- 1.81E-05
m 23	383.58	2.76E-01 +/- 7.41E-02	1.30E+00	3.21E-04 +/- 1.83E-05
24	393.68	8.00E-01 +/- 1.09E-01	1.30E+00	3.17E-04 +/- 1.87E-05
25	413.70	1.85E+00 +/- 1.47E-01	1.29E+00	3.08E-04 +/- 1.94E-05
26	452.04	1.96E-01 +/- 6.10E-02	1.28E+00	2.92E-04 +/- 2.00E-05
27	619.31	1.07E-01 +/- 3.88E-02	1.23E+00	2.28E-04 +/- 1.48E-05
28	662.42	1.88E-01 +/- 5.54E-02	1.23E+00	2.15E-04 +/- 1.30E-05
29	722.01	9.82E-02 +/- 3.94E-02	1.21E+00	1.97E-04 +/- 1.08E-05
30	964.13	2.64E-02 +/- 1.52E-02	1.18E+00	1.45E-04 +/- 6.48E-06
31	2236.00	1.00E+02 +/- 1.51E+00	1.12E+00	5.79E-05 +/- 3.30E-05
32	2295.09	9.68E-02 +/- 2.92E-02	1.12E+00	5.67E-05 +/- 3.53E-05

Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 113.12 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.321 +/- 0.0100
SE-75	264.65	0.000 +/- 0.0000	0.411 +/- 0.0089
SE-75	279.53	0.000 +/- 0.0000	0.414 +/- 0.0095
SE-75	400.65	0.000 +/- 0.0000	0.465 +/- 0.0117

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.77	5.91E-01 +/- 1.77E-01	2.08E+00	2.01E-09 +/- 1.26E-08
2	50.02	1.50E+01 +/- 1.30E+00	1.72E+00	2.08E-06 +/- 5.25E-06
3	60.17	2.50E+02 +/- 3.49E+00	1.65E+00	1.30E-05 +/- 2.08E-05
4	99.47	8.22E+00 +/- 5.84E-01	1.54E+00	2.34E-04 +/- 5.59E-05
5	111.69	9.04E-01 +/- 3.67E-01	1.52E+00	3.26E-04 +/- 3.51E-05
M 6	125.94	2.74E+00 +/- 2.29E-01	1.50E+00	4.16E-04 +/- 2.45E-05
m 7	130.00	7.28E+00 +/- 4.21E-01	1.50E+00	4.38E-04 +/- 2.82E-05
8	204.20	3.43E-01 +/- 1.40E-01	1.42E+00	5.35E-04 +/- 5.73E-05
9	208.67	2.03E+00 +/- 2.82E-01	1.42E+00	5.31E-04 +/- 5.52E-05
10	300.10	3.57E-01 +/- 1.39E-01	1.36E+00	4.04E-04 +/- 1.94E-05
11	311.90	6.48E-01 +/- 1.34E-01	1.36E+00	3.88E-04 +/- 1.81E-05
M 12	333.36	7.18E-01 +/- 1.34E-01	1.35E+00	3.62E-04 +/- 1.72E-05
m 13	336.17	3.89E-01 +/- 9.31E-02	1.35E+00	3.59E-04 +/- 1.72E-05
14	345.74	2.89E-01 +/- 1.33E-01	1.34E+00	3.49E-04 +/- 1.72E-05
15	375.71	9.72E-01 +/- 1.66E-01	1.33E+00	3.19E-04 +/- 1.78E-05
16	380.94	4.57E-01 +/- 9.80E-02	1.33E+00	3.14E-04 +/- 1.80E-05
17	393.72	5.96E-01 +/- 9.95E-02	1.32E+00	3.03E-04 +/- 1.82E-05
18	413.70	1.38E+00 +/- 1.31E-01	1.31E+00	2.87E-04 +/- 1.84E-05
19	452.38	9.50E-02 +/- 5.21E-02	1.30E+00	2.61E-04 +/- 1.82E-05
20	662.42	1.97E-01 +/- 5.23E-02	1.24E+00	1.82E-04 +/- 1.13E-05
21	722.01	8.33E-02 +/- 4.79E-02	1.23E+00	1.70E-04 +/- 9.57E-06
22	964.13	3.54E-02 +/- 1.77E-02	1.20E+00	1.38E-04 +/- 6.29E-06
23	1112.12	8.84E-03 +/- 8.84E-03	1.18E+00	1.27E-04 +/- 5.46E-06
24	2236.00	1.00E+02 +/- 1.51E+00	1.13E+00	6.48E-05 +/- 3.54E-05

Segment: 13 Detector: DET01 (# 1) Position: 13

Elapsed Live Time: 113.66 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.246 +/- 0.0085
SE-75	264.65	0.000 +/- 0.0000	0.325 +/- 0.0071
SE-75	279.53	0.000 +/- 0.0000	0.325 +/- 0.0076
SE-75	400.65	0.000 +/- 0.0000	0.378 +/- 0.0097

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.62	4.35E-01 +/- 1.33E-01	2.35E+00	2.32E-08 +/- 1.47E-07
2	50.06	1.06E+01 +/- 9.95E-01	1.92E+00	5.02E-06 +/- 1.34E-05
3	60.17	1.36E+02 +/- 2.10E+00	1.82E+00	2.29E-05 +/- 3.88E-05
4	99.51	3.98E+00 +/- 4.53E-01	1.68E+00	2.51E-04 +/- 6.28E-05
M 5	126.04	1.50E+00 +/- 1.80E-01	1.64E+00	4.03E-04 +/- 2.40E-05
m 6	130.02	3.40E+00 +/- 3.05E-01	1.63E+00	4.19E-04 +/- 2.78E-05
7	148.57	4.67E-01 +/- 2.51E-01	1.61E+00	4.73E-04 +/- 5.02E-05
8	204.23	3.70E-01 +/- 1.40E-01	1.54E+00	4.91E-04 +/- 5.54E-05
9	208.66	7.78E-01 +/- 2.24E-01	1.54E+00	4.88E-04 +/- 5.34E-05
10	300.10	3.17E-01 +/- 1.20E-01	1.47E+00	3.86E-04 +/- 1.92E-05
11	311.90	3.44E-01 +/- 1.02E-01	1.47E+00	3.74E-04 +/- 1.79E-05
M 12	333.54	2.87E-01 +/- 7.96E-02	1.45E+00	3.53E-04 +/- 1.73E-05
m 13	335.96	3.18E-01 +/- 8.53E-02	1.45E+00	3.50E-04 +/- 1.73E-05
14	345.49	3.13E-01 +/- 9.55E-02	1.45E+00	3.42E-04 +/- 1.75E-05
15	375.72	6.63E-01 +/- 1.07E-01	1.43E+00	3.16E-04 +/- 1.85E-05
16	393.79	2.42E-01 +/- 6.57E-02	1.42E+00	3.03E-04 +/- 1.90E-05
17	413.70	5.16E-01 +/- 7.74E-02	1.41E+00	2.89E-04 +/- 1.94E-05
18	452.65	7.90E-02 +/- 4.35E-02	1.39E+00	2.66E-04 +/- 1.94E-05
19	583.80	7.82E-02 +/- 3.14E-02	1.34E+00	2.13E-04 +/- 1.53E-05
20	662.42	1.08E-01 +/- 4.87E-02	1.32E+00	1.92E-04 +/- 1.21E-05
21	964.13	3.56E-02 +/- 2.16E-02	1.25E+00	1.45E-04 +/- 6.45E-06
22	1001.03	3.48E-02 +/- 2.16E-02	1.25E+00	1.41E-04 +/- 6.24E-06
23	1085.91	3.48E-02 +/- 1.74E-02	1.24E+00	1.32E-04 +/- 5.78E-06
24	1408.01	8.69E-03 +/- 8.69E-03	1.20E+00	1.05E-04 +/- 7.00E-06
25	2236.00	1.00E+02 +/- 1.50E+00	1.17E+00	5.36E-05 +/- 3.03E-05

Segment: 14

Detector: DET01 (# 1)

Position: 14

Elapsed Live Time: 114.02 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.389 +/- 0.0095
SE-75	264.65	0.000 +/- 0.0000	0.480 +/- 0.0070
SE-75	279.53	0.000 +/- 0.0000	0.492 +/- 0.0080
SE-75	400.65	0.000 +/- 0.0000	0.540 +/- 0.0102

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	50.25	5.69E+00 +/-	7.57E-01	1.58E+00 4.72E-05 +/- 1.16E-04
2	60.17	6.43E+01 +/-	1.22E+00	1.52E+00 9.59E-05 +/- 1.50E-04
3	99.53	2.53E+00 +/-	2.86E-01	1.44E+00 3.20E-04 +/- 7.48E-05
4	103.70	2.27E+00 +/-	2.46E-01	1.43E+00 3.38E-04 +/- 6.15E-05
M 5	126.09	4.10E-01 +/-	1.07E-01	1.41E+00 4.13E-04 +/- 2.41E-05
m 6	130.05	1.74E+00 +/-	2.24E-01	1.41E+00 4.22E-04 +/- 2.68E-05
7	204.25	3.08E-01 +/-	1.35E-01	1.34E+00 4.57E-04 +/- 4.85E-05
8	208.69	5.36E-01 +/-	1.15E-01	1.34E+00 4.54E-04 +/- 4.70E-05
9	311.90	1.73E-01 +/-	9.58E-02	1.28E+00 3.71E-04 +/- 1.72E-05
10	345.70	2.38E-01 +/-	8.80E-02	1.27E+00 3.44E-04 +/- 1.65E-05
11	375.68	3.96E-01 +/-	9.62E-02	1.26E+00 3.22E-04 +/- 1.72E-05
12	393.47	1.49E-01 +/-	6.54E-02	1.25E+00 3.10E-04 +/- 1.77E-05
13	413.70	2.52E-01 +/-	6.85E-02	1.25E+00 2.98E-04 +/- 1.80E-05
14	662.42	5.66E-02 +/-	3.55E-02	1.19E+00 1.96E-04 +/- 1.14E-05
15	2236.00	1.00E+02 +/-	1.50E+00	1.10E+00 7.64E-05 +/- 4.15E-05

Segment: 15 Detector: DET01 (# 1) Position: 15

Elapsed Live Time: 114.18 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.453 +/- 0.0129
SE-75	264.65	0.000 +/- 0.0000	0.535 +/- 0.0114
SE-75	279.53	0.000 +/- 0.0000	0.537 +/- 0.0121
SE-75	400.65	0.000 +/- 0.0000	0.572 +/- 0.0139

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.83	4.40E+00 +/-	5.47E-01	1.48E+00 1.70E-06 +/- 4.46E-06
2	60.18	2.32E+01 +/-	6.84E-01	1.43E+00 1.23E-05 +/- 2.03E-05
3	99.53	5.83E-01 +/-	2.19E-01	1.36E+00 2.34E-04 +/- 5.72E-05
4	115.15	2.76E-01 +/-	1.74E-01	1.35E+00 3.45E-04 +/- 2.92E-05
5	129.29	7.61E-01 +/-	2.49E-01	1.34E+00 4.21E-04 +/- 2.67E-05
6	148.57	4.95E-01 +/-	1.77E-01	1.32E+00 4.82E-04 +/- 5.01E-05
7	185.71	2.27E-01 +/-	1.57E-01	1.30E+00 5.02E-04 +/- 6.08E-05
8	311.90	1.18E-01 +/-	9.41E-02	1.25E+00 3.47E-04 +/- 1.64E-05
9	375.71	2.15E-01 +/-	5.69E-02	1.23E+00 2.88E-04 +/- 1.59E-05
10	393.62	9.28E-02 +/-	5.09E-02	1.23E+00 2.75E-04 +/- 1.62E-05
11	867.39	6.04E-02 +/-	2.29E-02	1.15E+00 1.44E-04 +/- 6.82E-06
12	1112.12	8.63E-03 +/-	8.63E-03	1.13E+00 1.18E-04 +/- 5.22E-06
13	2236.00	1.00E+02 +/-	1.49E+00	1.09E+00 3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01

(# 1)

Position: 16

Elapsed Live Time: 114.28 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.621 +/- 0.0170
SE-75	264.65	0.000 +/- 0.0000	0.679 +/- 0.0144
SE-75	279.53	0.000 +/- 0.0000	0.681 +/- 0.0151
SE-75	400.65	0.000 +/- 0.0000	0.726 +/- 0.0173

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.52	1.25E-01 +/-	7.36E-02	1.39E+00 4.36E-06 +/- 5.13E-06
2	60.15	5.46E+00 +/-	3.79E-01	1.25E+00 5.62E-05 +/- 2.41E-05
3	208.74	1.56E-01 +/-	6.82E-02	1.17E+00 2.62E-04 +/- 1.78E-05
4	375.75	1.36E-01 +/-	6.51E-02	1.13E+00 1.94E-04 +/- 9.73E-06
5	778.90	3.77E-02 +/-	2.60E-02	1.09E+00 9.86E-05 +/- 6.05E-06
6	964.13	4.00E-02 +/-	2.95E-02	1.08E+00 8.21E-05 +/- 4.35E-06
7	2236.00	1.00E+02 +/-	1.49E+00	1.05E+00 6.28E-05 +/- 1.87E-05

Canberra SGS Assay Report
Instrument ID: SGS

12-18-07 6:55:44 PM
Can ID: LL85901731-R

Page 19
Count Sequence #: 2497

Summed Spectrum

Peak Locate Report

Sample ID: LL85901731-R
Peak Locate Performed on: 12-18-07 6:53:34 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.80	0.1607	32.07	16.38
2	100.83	0.1046	50.08	32.03
3	121.00	0.0260	60.16	642.86
4	199.63	0.0556	99.48	135.13
5	224.04	0.0989	111.69	44.30
6	231.48	0.1243	115.40	23.20
7	247.38	0.2586	123.68	9.29
8	252.68	0.0816	125.95	67.91
9	260.63	0.0578	129.96	123.17
10	290.24	0.2129	144.91	12.34
11	294.68	0.2214	147.10	13.82
12	299.53	0.1635	149.27	18.42
13	323.76	0.1861	161.54	9.68
14	343.52	0.2043	171.43	6.75
15	360.34	0.2592	179.84	5.92
16	380.73	0.2362	190.03	7.72
17	393.22	0.1991	196.27	10.93
18	418.03	0.0716	208.68	81.75
19	512.87	0.2041	256.10	10.37
20	536.99	0.2646	268.16	6.40
21	597.08	0.2910	298.33	5.61
22	602.62	0.2825	300.86	5.93
23	625.88	0.1133	312.60	31.74
24	647.56	0.1943	323.45	7.08
25	667.31	0.1058	333.43	36.43
26	673.67	0.1398	336.30	23.06
27	692.08	0.1024	345.71	38.77
28	738.75	0.1456	369.04	17.12
29	752.15	0.0770	375.74	64.76
30	762.11	0.1417	380.91	22.70
31	767.91	0.1495	383.51	20.34
32	787.93	0.1040	393.63	36.34
33	829.53	0.0768	414.43	58.51
34	847.27	0.1549	423.30	15.90
35	905.18	0.1375	452.25	19.89
36	1023.94	0.2126	511.64	5.86

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	1239.98	0.2336	619.66	6.02
38	1307.53	0.2556	653.43	5.35
39	1327.11	0.1335	663.22	19.50
40	1446.19	0.1618	722.76	13.11
41	2668.37	0.2404	1333.85	5.25
42	4473.29	0.0267	2236.31	406.68
43	4591.66	0.2177	2295.49	6.64

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: LL85901731-R
 Peak Analysis Performed on: 12-18-07 6:53:34 PM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area Uncert.	Continuum Counts
1	61-	69	64.80	32.07	1.89E+03	96.16		2.88E+03
2	94-	105	100.83	50.08	3.44E+04	607.84		1.25E+05
3	114-	127	121.00	60.16	7.25E+05	1043.00		1.31E+05
4	194-	203	199.63	99.48	3.00E+04	387.68		5.34E+04
5	217-	227	224.04	111.69	3.32E+03	236.21		2.16E+04
6	227-	238	231.48	115.40	1.32E+03	272.09		2.70E+04
M 7	244-	267	248.04	123.68	2.63E+03	89.38		9.64E+03
m 8	244-	267	252.57	125.95	1.15E+04	147.42		7.63E+03
m 9	244-	267	260.60	129.96	2.77E+04	258.73		5.80E+03
M 10	283-	304	290.48	144.91	1.37E+03	76.97		5.01E+03
m 11	283-	304	294.87	147.10	1.79E+03	88.53		5.23E+03
m 12	283-	304	299.21	149.27	1.82E+03	91.19		5.52E+03
13	316-	327	323.76	161.54	8.99E+02	144.74		7.97E+03
14	338-	350	343.52	171.43	1.01E+03	143.52		7.43E+03
15	356-	367	360.34	179.84	1.94E+02	126.68		6.32E+03
16	377-	387	380.73	190.03	4.26E+02	116.68		5.52E+03
17	390-	400	393.22	196.27	5.37E+02	113.02		5.11E+03
18	413-	425	418.03	208.68	7.59E+03	174.21		8.23E+03
19	510-	520	512.87	256.10	3.71E+02	78.53		2.41E+03
20	534-	544	536.99	268.16	1.50E+02	73.79		2.21E+03
M 21	589-	610	597.33	298.33	3.42E+02	45.84		1.60E+03
m 22	589-	610	602.39	300.86	3.70E+02	47.86		1.53E+03
23	621-	629	625.88	312.60	1.80E+03	68.37		1.35E+03
24	640-	655	647.56	323.45	9.18E+02	88.45		2.29E+03
M 25	659-	678	667.53	333.43	3.27E+03	88.68		1.21E+03
m 26	659-	678	673.26	336.30	2.09E+03	65.53		1.31E+03
27	691-	699	692.08	345.71	2.54E+03	70.26		9.90E+02
28	731-	746	738.75	369.04	6.81E+02	88.89		2.31E+03
29	746-	759	752.15	375.74	5.24E+03	126.83		3.68E+03
M 30	759-	775	762.48	380.91	1.06E+03	54.03		1.01E+03
m 31	759-	775	767.68	383.51	1.15E+03	54.05		6.90E+02
32	780-	795	787.93	393.63	2.61E+03	71.31		8.24E+02
33	821-	837	829.53	414.43	6.51E+03	94.80		7.93E+02
34	843-	851	847.27	423.30	3.52E+02	36.03		4.44E+02
35	897-	913	905.18	452.25	7.51E+02	46.55		4.53E+02
36	1015-	1031	1023.94	511.64	3.50E+02	36.14		3.06E+02
37	1236-	1248	1239.98	619.66	1.26E+02	21.77		1.30E+02

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	1299-	1315	1307.53	653.43	5.58E+01	26.70		2.10E+02
39	1318-	1335	1327.11	663.22	7.93E+02	35.35		1.41E+02
40	1441-	1451	1446.19	722.76	3.37E+02	23.86		9.78E+01
41	2663-	2677	2668.37	1333.85	6.09E+01	12.10		2.91E+01
42	4468-	4479	4473.29	2236.31	1.80E+05	425.55		3.60E+02
43	4587-	4599	4591.66	2295.49	8.68E+01	16.24		4.92E+01

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: LL85901731-R
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	0.993	2236.00*	100.00	7.812E+02	1.792E+02
Np-237	0.964	300.10*	6.63	5.656E+00	7.340E-01
		311.90*	38.60	4.850E+00	1.877E-01
Pu-239	0.963	413.70*	0.00	5.517E+05	1.302E+04
Pu-239A	0.969	129.29*	0.01	4.776E+05	1.218E+04
Am-241	0.955	662.42*	0.00	3.605E+05	1.642E+04
Am-241D	0.961	722.01*	0.00	3.341E+05	2.387E+04
Pu-241	0.965	148.57*	0.00	9.415E+05	5.039E+04

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-18-07 6:53:34 PM
 Peak Locate From Channel: 40
 Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	32.07	1.6848E+01	5.09
2	50.08	3.0653E+02	1.79
3	60.16	6.4615E+03	0.29
4	99.48	2.6703E+02	1.32
5	111.69	2.9564E+01	7.13
6	115.40	1.1812E+01	20.54
M 7	123.68	2.3465E+01	3.41
m 8	125.95	1.0220E+02	1.31
M 10	144.91	1.2234E+01	5.61
m 11	147.10	1.5925E+01	4.96
13	161.54	8.0182E+00	16.09
14	171.43	8.9884E+00	14.24
15	179.84	1.7305E+00	65.26
16	190.03	3.7989E+00	27.38
17	196.27	4.7848E+00	21.06
18	208.68	6.7668E+01	2.31
19	256.10	3.3100E+00	21.15
20	268.16	1.3349E+00	49.28
M 21	298.33	3.0508E+00	13.40
24	323.45	8.1864E+00	9.64
M 25	333.43	2.9158E+01	2.72
m 26	336.30	1.8604E+01	3.15
27	345.71	2.2661E+01	2.78
28	369.04	6.0713E+00	13.06
29	375.74	4.6705E+01	2.43
M 30	380.91	9.4657E+00	5.09
m 31	383.51	1.0228E+01	4.72
32	393.63	2.3285E+01	2.74
34	423.30	3.1370E+00	10.24
35	452.25	6.6934E+00	6.21
36	511.64	3.1214E+00	10.33
37	619.66	1.1242E+00	17.26
38	653.43	4.9758E-01	47.84
41	1333.85	5.4298E-01	19.87
43	2295.49	7.7377E-01	18.71

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	8.63E+02	+/-	1.29E+02	2.11E-02
SE-75	<	1.32E-01	+/-	8.51E-03
EU-152x	6.95E-02	+/-	1.83E-02	3.22E-06
U-233	<	9.29E+03	+/-	7.14E+02
U-235	2.78E-02	+/-	1.95E-02	2.27E-01
Np-237	4.97E+00	+/-	2.29E-01	1.21E-04
Pu-238	2.07E+04	+/-	6.71E+03	5.06E-01
U-238	3.85E+00	+/-	1.07E+00	9.39E-05
Pu-239	5.89E+05	+/-	1.51E+04	1.44E+01
Pu-239A	5.43E+05	+/-	1.34E+04	1.32E+01
Am-241	3.55E+05	+/-	1.73E+04	8.67E+00
Am-241D	3.69E+05	+/-	2.48E+04	9.00E+00
Pu-241	1.10E+06	+/-	7.74E+04	2.68E+01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)
U-235	1.29E-02
Np-237	7.05E-03
Pu-238	1.21E-03
U-238	1.15E+01
Pu-239	9.49E+00
Pu-239A	8.74E+00
Am-241	1.04E-01
Pu-241	1.06E-02

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	7.81E+02	+/-	1.79E+02	1.91E-02
SE-75	< 5.54E-01	+/-	5.04E-03	< 1.35E-05
EU-152X	< 5.68E-01	+/-	1.03E-02	< 1.38E-05
U-233	< 4.16E+04	+/-	8.93E+02	< 1.01E+00
U-235	< 8.04E-01	+/-	1.83E-02	< 1.96E-05
Np-237	4.90E+00	+/-	1.82E-01	1.20E-04
Pu-238	< 6.53E+04	+/-	1.23E+03	< 1.59E+00
U-238	< 1.57E+01	+/-	2.49E-01	< 3.82E-04
Pu-239	5.52E+05	+/-	1.30E+04	1.35E+01
Pu-239A	4.78E+05	+/-	1.22E+04	1.16E+01
Am-241	3.61E+05	+/-	1.64E+04	8.79E+00
Am-241D	3.34E+05	+/-	2.39E+04	8.15E+00
Pu-241	9.42E+05	+/-	5.04E+04	2.30E+01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

Np-237	6.96E-03	+/-	2.58E-04
Pu-239	8.88E+00	+/-	2.10E-01
Pu-239A	7.69E+00	+/-	1.96E-01
Am-241	1.05E-01	+/-	4.79E-03
Pu-241	9.10E-03	+/-	4.87E-04

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.966 +/- 21.5579
Matrix Longitudinal Ratio: 0.888 +/- 0.0788

Source Vertical Ratio: 0.671 +/- 0.5233
Matrix Vertical Ratio: 0.845 +/- 0.0233

NUDS could not find the transmission peak in one radial segment.

Radioassay Data Sheet

Procedure ID & Rev: WCP-55 03/07/2002

Tue Dec 18 06:25:01 2007

Software Version: GWAS v2.3bGEN

Drum ID	:	LL85901731	Gross Weight (kg)	:	64.8
Sequence Number	:	2495	Fill Height (%)	:	100.0
Assay Date	:	12/12/07 10:08:29	Density (g/cc)	:	0.20
Batch Number	:		Net Weight (kg)	:	41.00
Site ID	:		Waste Matrix Code	:	
			TRUCON	:	

Errors at 1.00 Sigma					
TRU Alpha Activity Concentration:	3.05e-05	+/-	3.50e-06	Ci/g	
Total Pu-239 Equiv Activity:	1.27e+00	+/-	1.43e-01	Ci	
Total Pu-239 Fissile Gram Equiv:	1.05e+01	+/-	1.96e+00	g	
Decay Heat:	4.04e-02	+/-	4.59e-03	W	
Total Pu Mass:	1.10e+01	+/-	1.96e+00	g	
TMU:	19.08%				
Waste Classification:	TRU				

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
------------------	---------------------	-------------------------------

Pu-238	5.13e-02	2.51e+00
Pu-239	9.28e+01	1.07e-01
Pu-240	6.93e+00	1.42e+00
Pu-241	1.37e-01	1.58e+00
Pu-242	5.04e-02	1.00e+01
Am-241	1.12e+00	7.79e-01
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	1.78e+00	1.64e+01

Activity Errors

Isotope	1.00 Sigma Mass (g)	Alpha Activity/ Error/Isotope Mass (g)	1.00 Sigma Isotope (Ci)	1.00 Sigma Error/Isotope (Ci)	MDA (g)
Pu-238	5.66e-03	1.09e-03	9.69e-02	1.86e-02	8.77e-04
Pu-239	1.02e+01	1.96e+00	6.36e-01	1.21e-01	9.51e-02
Pu-240	7.65e-01	1.46e-01	1.74e-01	3.32e-02	0.00e+00
Pu-241	1.52e-02	2.90e-03	1.57e+00	3.00e-01	8.56e-04
Pu-242	5.56e-03	1.20e-03	2.18e-05	4.70e-06	0.00e+00
Am-241	1.00e-01	1.94e-02	3.44e-01	6.63e-02	4.42e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	7.33e-03	1.41e-03	5.16e-06	9.96e-07	4.69e-04
U-235	1.97e-01	4.95e-02	4.25e-07	1.07e-07	7.88e-02
U-238	1.73e+01	5.19e+00	5.82e-06	1.75e-06	1.26e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	9.55e-01
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Date

12-18-07

Reviewer Signature

Date

Software Version: GWAS v2.3bGEN
Counter Number: SGS
Data Review for Container: LL85901731
Item Description Code: \Count Type: DEBRIS
Sequence Number: 2495
Assayed on: 12/12/07 10:08:29
Report Generated: 12/18/07 18:24:46
AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

REVIEW Pu-240 Wt Pct -2 Sigma error <6.73> greater than <5.87> Review MGA R
Pu-240 Wt Pct error <1.42> is within limits
Pu-238 Wt Pct error <2.51> is within limits
QFIT <1.06> is within limits

OK

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.197> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <1.11e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <1.32> is acceptable in Segment 1
Pulser value <0.99> is within range in Segment 1
DEAD TIME percentage <2.15> is acceptable in Segment 2
Pulser value <0.99> is within range in Segment 2
DEAD TIME percentage <4.42> is acceptable in Segment 3
Pulser value <1.01> is within range in Segment 3
DEAD TIME percentage <4.83> is acceptable in Segment 4
Pulser value <1.01> is within range in Segment 4
DEAD TIME percentage <3.32> is acceptable in Segment 5
Pulser value <1.00> is within range in Segment 5
DEAD TIME percentage <2.76> is acceptable in Segment 6
Pulser value <1.00> is within range in Segment 6
DEAD TIME percentage <3.10> is acceptable in Segment 7
Pulser value <1.00> is within range in Segment 7
DEAD TIME percentage <4.29> is acceptable in Segment 8
Pulser value <1.01> is within range in Segment 8
DEAD TIME percentage <3.88> is acceptable in Segment 9
Pulser value <1.01> is within range in Segment 9
DEAD TIME percentage <2.50> is acceptable in Segment 10
Pulser value <1.00> is within range in Segment 10
DEAD TIME percentage <1.99> is acceptable in Segment 11
Pulser value <0.99> is within range in Segment 11
DEAD TIME percentage <1.63> is acceptable in Segment 12
Pulser value <0.99> is within range in Segment 12
DEAD TIME percentage <1.16> is acceptable in Segment 13
Pulser value <0.99> is within range in Segment 13
DEAD TIME percentage <0.85> is acceptable in Segment 14
Pulser value <0.99> is within range in Segment 14
DEAD TIME percentage <0.68> is acceptable in Segment 15
Pulser value <0.98> is within range in Segment 15
DEAD TIME percentage <0.62> is acceptable in Segment 16
Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
Transmission results are acceptable in Segment 2
Transmission results are acceptable in Segment 3
Transmission results are acceptable in Segment 4
Transmission results are acceptable in Segment 5
Transmission results are acceptable in Segment 6
Transmission results are acceptable in Segment 7
Transmission results are acceptable in Segment 8
Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

All energy peaks within <3.00e+00> RCHISQ limit

Section 7 - FGE MASS REVIEW

FGE Mass <12.45> is within limits

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

REVIEW Am-241 ratio <102.02> is below lower limit <200.00> **OK**
 Np-237 ratio <1398.59> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <10.25> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Cs-137 Z Value <0.76> is less than limit <1.96> **OK** checked.

Independent Reviewer: Robert Hatch Date: 12-18-07

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS

Data Review for Container: LL85901731

Item Description Code:

Sequence Number: 2495

Assayed on: 12/12/07 10:08:29

AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA Pu-240 Wt Pct -2 Sigma error is greater than upper limit.	OK
SECTION 9 - IDC COUNT TYPE IDC is not available.	N/A
SECTION 10 - AM-241 & NP-237 INTERFERENCE TEST Possible Am-241 interference with 129 KeV peak.	OK Checked

Technical Reviewer:

Date: 12-18-07

 ***** M G A R E P O R T *****

Report generated on:

12-18-07 6:05:07 PM

MGA version: MGA V9.5 CI

Spectrum ID: 11202495.CNF Sens : 30.0% LT: 55.4 Mins DT: 2.06
 Measurement date: 12-12-07 Declared date: 12-12-07

Sample ID: LL85901731 Detector: Total counts: 2.299E+06

Pu g/cm² = 0.0804 Cd g/cm² = 1.8000 FWHM at 122 keV = 610 eV
 QFIT = 1.06 FWHM at 208 keV = 778 eV
 NQFIT = 1.00

Isotope	Relative to Pu-239	%*		Relative to Pu-241	%*		Isotope analysis at				
		Meas. date	Decl. date				% weight	% Err	% weight	% Err	
Pu-238	0.000552	2.5	2.4	0.3730	2.6	0.05127	2.51	0.05127	2.51		
Pu-239	1.000000	0.0	0.7	675.4206	1.6	92.83007	0.11	92.83007	0.11		
Pu-240	0.074662	1.5	1.3	50.4279	2.0	6.93083	1.42	6.93083	1.42		
Pu-241	0.001481	1.6	1.5	1.0000	0.0	0.13744	1.58	0.13744	1.58		
Pu-242	(New alg.)			0.3666 (10)		0.05039 (10)		0.05039 (10)			
Am-241	0.012093	0.8	0.4	8.1677	1.5	1.12258	0.78	1.12258	0.78		
U-235	0.019199	16.4	16.4			1.78224	16.41	1.78224	16.41		

Pu-240 effective (meas. date) = 7.145 +/- 1.54%
 Am-241 separated about 45.955 +/- 0.199 years ago
 Am/Pu-241 weight ratio = 8.16773 +/- 1.51%

Messages :

Lead x-rays detected.
 Pu-241/Pu-239 efficiency changed in MGACAL by 2%.
 17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
 1.000 sigma errors

Gamma Waste Assay

Sample Information

File Name: C:\WAS\DATA\2500\11102495.S11
Sample ID: LL85901731 Count Sequence Number: 2495
Assay Start: 12-12-07 10:08:30 AM
Description 1:
Description 2:
Location:
Comment:
Waste Type:
Weight: Gross: 64800.0 g Net: 41000.0 g
Density: 0.197 g /ml
Container Type: 55 Gal Galv 23.8
Container: Volume: 208000. ml Full: 100.0 %

System Configuration

Counter ID Number: SGS
Arrangement Description: SGS
Segments: Number: 16 Offset: 0
Scanning Platform: Start: 934 mm Delta: -51 mm
Count Type: 55 Gal Galv 23.8
Collimator/Geometry Setting: 0
Transmission Mode: Two pass
Transmission Source: 0

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps
Geometric Correction Factor(SWCONTGCF): 0.760
Date of efficiency calibration approval: 8-27-2003 2:05:34 PM
Mu Factors response file: Lucite response
Transmission Calib. Time: 12-10-2007 3:51:07 PM 28849

Reviewed by:



Date: 12-18-07

Segment Results

Segment: 1

Detector: DET01 (# 1)

Position: 1

Elapsed Live Time: 113.48 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.106 +/- 0.0052
SE-75	264.65	0.000 +/- 0.0000	0.158 +/- 0.0036
SE-75	279.53	0.000 +/- 0.0000	0.161 +/- 0.0041
SE-75	400.65	0.000 +/- 0.0000	0.200 +/- 0.0057

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.31	5.14E-01 +/- 1.33E-01	3.44E+00	5.59E-10 +/- 3.91E-09
2	49.37	9.53E+00 +/- 9.39E-01	2.63E+00	7.12E-07 +/- 2.14E-06
3	60.17	1.30E+02 +/- 2.02E+00	2.45E+00	6.34E-06 +/- 1.17E-05
4	99.64	2.10E+00 +/- 7.20E-01	2.19E+00	1.53E-04 +/- 4.15E-05
5	103.72	3.61E+00 +/- 4.32E-01	2.17E+00	1.76E-04 +/- 3.71E-05
6	111.60	6.33E-01 +/- 3.02E-01	2.15E+00	2.19E-04 +/- 2.68E-05
M 7	125.94	1.57E+00 +/- 1.99E-01	2.11E+00	2.87E-04 +/- 1.88E-05
m 8	129.95	4.47E+00 +/- 3.67E-01	2.10E+00	3.03E-04 +/- 2.20E-05
9	152.68	6.50E-01 +/- 2.43E-01	2.05E+00	3.67E-04 +/- 4.47E-05
10	172.19	4.28E-01 +/- 2.39E-01	2.01E+00	3.88E-04 +/- 5.26E-05
11	208.69	9.14E-01 +/- 2.44E-01	1.95E+00	3.80E-04 +/- 4.53E-05
12	311.90	2.40E-01 +/- 1.27E-01	1.82E+00	2.76E-04 +/- 1.41E-05
M 13	333.41	5.19E-01 +/- 1.24E-01	1.79E+00	2.57E-04 +/- 1.33E-05
m 14	336.19	2.15E-01 +/- 7.19E-02	1.79E+00	2.55E-04 +/- 1.33E-05
M 15	342.43	1.38E-01 +/- 5.44E-02	1.78E+00	2.50E-04 +/- 1.33E-05
m 16	345.68	3.78E-01 +/- 9.70E-02	1.78E+00	2.47E-04 +/- 1.34E-05
17	375.70	1.11E+00 +/- 1.46E-01	1.75E+00	2.25E-04 +/- 1.40E-05
18	383.60	3.35E-01 +/- 9.83E-02	1.75E+00	2.20E-04 +/- 1.41E-05
19	393.57	4.16E-01 +/- 9.21E-02	1.74E+00	2.14E-04 +/- 1.43E-05
20	413.70	1.14E+00 +/- 1.21E-01	1.72E+00	2.03E-04 +/- 1.44E-05
21	423.59	1.13E-01 +/- 5.73E-02	1.71E+00	1.97E-04 +/- 1.45E-05
22	452.26	1.64E-01 +/- 5.78E-02	1.69E+00	1.84E-04 +/- 1.43E-05
23	662.42	1.45E-01 +/- 3.87E-02	1.55E+00	1.27E-04 +/- 8.85E-06
24	722.01	7.56E-02 +/- 3.46E-02	1.52E+00	1.18E-04 +/- 7.51E-06
25	867.39	7.59E-02 +/- 3.05E-02	1.47E+00	1.02E-04 +/- 5.64E-06
26	964.13	1.74E-02 +/- 1.74E-02	1.44E+00	9.44E-05 +/- 5.09E-06
27	1001.03	1.74E-02 +/- 1.23E-02	1.43E+00	9.18E-05 +/- 4.92E-06

28 2236.00 1.00E+02 +/- 1.50E+00 1.28E+00 3.40E-05 +/- 2.15E-05

Segment: 2

Detector: DET01 (# 1)

Position: 2

Elapsed Live Time: 112.53 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.100 +/- 0.0051
SE-75	264.65	0.000 +/- 0.0000	0.155 +/- 0.0035
SE-75	279.53	0.000 +/- 0.0000	0.165 +/- 0.0042
SE-75	400.65	0.000 +/- 0.0000	0.200 +/- 0.0057

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.09	1.23E+00 +/- 2.58E-01	3.53E+00	1.89E-05 +/- 1.17E-04
2	49.89	1.44E+01 +/- 1.28E+00	2.67E+00	8.28E-05 +/- 2.13E-04
3	60.17	2.66E+02 +/- 3.66E+00	2.49E+00	1.33E-04 +/- 2.14E-04
4	99.55	1.52E+01 +/- 8.38E-01	2.22E+00	3.10E-04 +/- 7.45E-05
5	111.75	2.37E+00 +/- 5.29E-01	2.18E+00	3.48E-04 +/- 3.77E-05
M 6	125.90	4.34E+00 +/- 2.98E-01	2.14E+00	3.82E-04 +/- 2.26E-05
m 7	129.99	1.39E+01 +/- 6.10E-01	2.13E+00	3.89E-04 +/- 2.52E-05
8	152.68	7.43E-01 +/- 3.19E-01	2.08E+00	4.18E-04 +/- 4.48E-05
9	204.21	4.81E-01 +/- 2.98E-01	1.97E+00	4.27E-04 +/- 4.63E-05
10	208.68	2.25E+00 +/- 4.01E-01	1.96E+00	4.25E-04 +/- 4.49E-05
11	222.10	3.78E-01 +/- 2.34E-01	1.94E+00	4.20E-04 +/- 4.01E-05
12	255.98	3.12E-01 +/- 1.79E-01	1.88E+00	3.99E-04 +/- 2.79E-05
13	311.90	9.85E-01 +/- 2.11E-01	1.81E+00	3.58E-04 +/- 1.69E-05
M 14	333.44	1.96E+00 +/- 2.10E-01	1.79E+00	3.42E-04 +/- 1.64E-05
m 15	336.40	1.07E+00 +/- 1.41E-01	1.78E+00	3.40E-04 +/- 1.64E-05
16	345.73	1.38E+00 +/- 1.83E-01	1.78E+00	3.34E-04 +/- 1.66E-05
17	368.93	4.45E-01 +/- 2.06E-01	1.76E+00	3.18E-04 +/- 1.73E-05
18	375.74	3.44E+00 +/- 3.00E-01	1.75E+00	3.13E-04 +/- 1.75E-05
M 19	380.90	6.97E-01 +/- 1.29E-01	1.75E+00	3.10E-04 +/- 1.77E-05
m 20	383.58	7.00E-01 +/- 1.24E-01	1.75E+00	3.08E-04 +/- 1.78E-05
21	393.66	1.54E+00 +/- 1.67E-01	1.74E+00	3.01E-04 +/- 1.81E-05
22	413.70	4.11E+00 +/- 2.09E-01	1.72E+00	2.89E-04 +/- 1.85E-05
23	423.43	2.75E-01 +/- 8.27E-02	1.71E+00	2.83E-04 +/- 1.86E-05
24	452.05	4.87E-01 +/- 9.01E-02	1.69E+00	2.67E-04 +/- 1.85E-05
25	619.52	8.32E-02 +/- 3.67E-02	1.58E+00	1.98E-04 +/- 1.31E-05
26	662.42	2.56E-01 +/- 5.72E-02	1.55E+00	1.86E-04 +/- 1.15E-05
27	722.01	2.14E-01 +/- 5.44E-02	1.52E+00	1.71E-04 +/- 9.64E-06
28	1001.03	2.64E-02 +/- 1.52E-02	1.43E+00	1.28E-04 +/- 5.83E-06
29	1085.91	1.76E-02 +/- 1.24E-02	1.41E+00	1.20E-04 +/- 5.31E-06

30 2236.00 1.00E+02 +/- 1.51E+00 1.28E+00 9.73E-05 +/- 5.41E-05

Segment: 3 Detector: DET01 (# 1) Position: 3

Elapsed Live Time: 109.92 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.066 +/- 0.0047
SE-75	264.65	0.000 +/- 0.0000	0.108 +/- 0.0026
SE-75	279.53	0.000 +/- 0.0000	0.109 +/- 0.0031
SE-75	400.65	0.000 +/- 0.0000	0.138 +/- 0.0045

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.03	1.41E+00 +/- 2.50E-01	4.10E+00	3.44E-06 +/- 3.29E-06
2	49.97	2.69E+01 +/- 1.68E+00	3.05E+00	3.87E-05 +/- 1.88E-05
3	60.16	8.11E+02 +/- 1.02E+01	2.83E+00	8.07E-05 +/- 2.79E-05
4	99.45	4.15E+01 +/- 1.37E+00	2.49E+00	2.97E-04 +/- 3.03E-05
5	111.68	6.67E+00 +/- 7.85E-01	2.44E+00	3.54E-04 +/- 2.60E-05
6	115.61	1.37E+00 +/- 9.40E-01	2.43E+00	3.71E-04 +/- 2.48E-05
M 7	123.62	3.08E+00 +/- 2.93E-01	2.40E+00	4.00E-04 +/- 2.30E-05
m 8	125.97	1.31E+01 +/- 4.90E-01	2.39E+00	4.08E-04 +/- 2.26E-05
m 9	129.97	3.79E+01 +/- 1.02E+00	2.38E+00	4.20E-04 +/- 2.22E-05
M 10	144.73	1.97E+00 +/- 2.81E-01	2.34E+00	4.56E-04 +/- 2.23E-05
m 11	147.00	1.81E+00 +/- 2.69E-01	2.33E+00	4.60E-04 +/- 2.24E-05
m 12	149.19	1.92E+00 +/- 2.84E-01	2.33E+00	4.64E-04 +/- 2.26E-05
13	172.19	1.23E+00 +/- 4.52E-01	2.26E+00	4.90E-04 +/- 2.48E-05
14	179.96	5.45E-01 +/- 3.55E-01	2.25E+00	4.94E-04 +/- 2.54E-05
15	189.97	5.62E-01 +/- 2.28E-01	2.22E+00	4.95E-04 +/- 2.58E-05
16	196.35	7.46E-01 +/- 2.84E-01	2.21E+00	4.95E-04 +/- 2.60E-05
17	204.22	4.12E+00 +/- 4.15E-01	2.19E+00	4.93E-04 +/- 2.59E-05
18	208.67	5.72E+00 +/- 6.73E-01	2.18E+00	4.92E-04 +/- 2.59E-05
M 19	297.98	2.74E-01 +/- 1.36E-01	2.04E+00	4.18E-04 +/- 1.90E-05
m 20	300.90	3.35E-01 +/- 1.55E-01	2.04E+00	4.15E-04 +/- 1.88E-05
21	311.90	1.44E+00 +/- 2.39E-01	2.03E+00	4.04E-04 +/- 1.79E-05
M 22	333.43	4.98E+00 +/- 3.44E-01	2.00E+00	3.84E-04 +/- 1.63E-05
m 23	336.30	2.95E+00 +/- 2.32E-01	2.00E+00	3.81E-04 +/- 1.61E-05
24	345.69	3.68E+00 +/- 2.39E-01	1.99E+00	3.73E-04 +/- 1.56E-05
25	368.98	8.50E-01 +/- 3.42E-01	1.97E+00	3.52E-04 +/- 1.43E-05
26	375.74	8.24E+00 +/- 4.92E-01	1.96E+00	3.46E-04 +/- 1.41E-05
M 27	380.83	1.89E+00 +/- 2.15E-01	1.95E+00	3.42E-04 +/- 1.38E-05
m 28	383.44	1.74E+00 +/- 1.87E-01	1.95E+00	3.40E-04 +/- 1.37E-05
29	393.64	4.00E+00 +/- 2.59E-01	1.94E+00	3.31E-04 +/- 1.34E-05

30	413.70	1.16E+01	+/-	3.81E-01	1.92E+00	3.16E-04	+/-	1.28E-05
31	423.41	5.65E-01	+/-	1.34E-01	1.91E+00	3.09E-04	+/-	1.26E-05
32	452.15	1.38E+00	+/-	1.44E-01	1.88E+00	2.89E-04	+/-	1.20E-05
33	619.46	3.12E-01	+/-	6.27E-02	1.73E+00	2.09E-04	+/-	1.01E-05
34	653.51	2.07E-01	+/-	5.24E-02	1.71E+00	1.98E-04	+/-	9.73E-06
35	662.42	1.24E+00	+/-	1.08E-01	1.70E+00	1.95E-04	+/-	9.62E-06
36	689.55	1.27E-01	+/-	4.38E-02	1.68E+00	1.87E-04	+/-	9.29E-06
37	722.01	3.05E-01	+/-	6.74E-02	1.66E+00	1.79E-04	+/-	8.87E-06
38	964.13	4.59E-02	+/-	2.05E-02	1.55E+00	1.39E-04	+/-	5.75E-06
39	1001.03	4.59E-02	+/-	2.05E-02	1.54E+00	1.35E-04	+/-	5.37E-06
40	1408.01	3.67E-02	+/-	1.84E-02	1.44E+00	1.15E-04	+/-	7.14E-06
41	2236.00	1.00E+02	+/-	1.54E+00	1.36E+00	1.32E-04	+/-	3.24E-05
42	2295.30	1.56E-01	+/-	5.26E-02	1.35E+00	1.35E-04	+/-	3.52E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
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Segment: 4	Detector: DET01 (# 1)	Position: 4
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Elapsed Live Time: 109.44 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.062 +/- 0.0053
SE-75	264.65	0.000 +/- 0.0000	0.172 +/- 0.0039
SE-75	279.53	0.000 +/- 0.0000	0.182 +/- 0.0047
SE-75	400.65	0.000 +/- 0.0000	0.219 +/- 0.0063

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.02	1.22E+00 +/- 2.62E-01	4.10E+00	1.17E-07 +/- 7.15E-07
2	50.06	2.23E+01 +/- 1.62E+00	3.11E+00	1.06E-05 +/- 2.66E-05
3	60.16	8.61E+02 +/- 1.08E+01	2.88E+00	3.62E-05 +/- 5.76E-05
4	99.48	4.42E+01 +/- 1.48E+00	2.54E+00	2.64E-04 +/- 6.32E-05
5	111.69	6.29E+00 +/- 8.44E-01	2.49E+00	3.35E-04 +/- 3.62E-05
6	115.38	1.95E+00 +/- 9.95E-01	2.47E+00	3.53E-04 +/- 2.96E-05
M 7	123.75	3.83E+00 +/- 3.17E-01	2.44E+00	3.91E-04 +/- 2.30E-05
m 8	125.96	1.70E+01 +/- 5.66E-01	2.44E+00	4.00E-04 +/- 2.37E-05
m 9	129.96	4.49E+01 +/- 1.12E+00	2.42E+00	4.14E-04 +/- 2.68E-05
M 10	144.86	1.93E+00 +/- 2.60E-01	2.34E+00	4.55E-04 +/- 4.32E-05
m 11	147.11	2.44E+00 +/- 2.99E-01	2.33E+00	4.60E-04 +/- 4.53E-05
m 12	149.26	2.91E+00 +/- 3.40E-01	2.31E+00	4.64E-04 +/- 4.72E-05
M 13	170.30	9.31E-01 +/- 2.58E-01	2.19E+00	4.87E-04 +/- 5.74E-05
m 14	172.04	9.34E-01 +/- 2.56E-01	2.18E+00	4.88E-04 +/- 5.77E-05
15	196.28	1.32E+00 +/- 3.60E-01	2.06E+00	4.87E-04 +/- 5.48E-05
16	208.69	1.25E+01 +/- 6.71E-01	2.01E+00	4.80E-04 +/- 5.04E-05
17	256.11	5.79E-01 +/- 2.27E-01	1.84E+00	4.36E-04 +/- 3.05E-05
M 18	264.36	3.96E-01 +/- 1.47E-01	1.82E+00	4.27E-04 +/- 2.76E-05
m 19	268.11	4.24E-01 +/- 1.49E-01	1.81E+00	4.23E-04 +/- 2.64E-05
20	300.10	5.04E-01 +/- 3.20E-01	1.76E+00	3.89E-04 +/- 1.89E-05
21	311.90	2.20E+00 +/- 3.36E-01	1.75E+00	3.77E-04 +/- 1.75E-05
22	323.76	1.96E+00 +/- 3.24E-01	1.74E+00	3.66E-04 +/- 1.68E-05
M 23	333.42	6.40E+00 +/- 3.85E-01	1.74E+00	3.57E-04 +/- 1.65E-05
m 24	336.25	3.54E+00 +/- 2.58E-01	1.73E+00	3.54E-04 +/- 1.65E-05
25	345.67	4.72E+00 +/- 4.53E-01	1.73E+00	3.46E-04 +/- 1.65E-05

26	369.14	1.42E+00	+/-	3.34E-01	1.71E+00	3.26E-04	+/-	1.70E-05
27	375.76	9.23E+00	+/-	5.34E-01	1.70E+00	3.21E-04	+/-	1.71E-05
M 28	380.91	2.33E+00	+/-	2.43E-01	1.70E+00	3.17E-04	+/-	1.72E-05
m 29	383.43	2.12E+00	+/-	2.10E-01	1.70E+00	3.15E-04	+/-	1.73E-05
30	393.68	4.51E+00	+/-	2.64E-01	1.69E+00	3.07E-04	+/-	1.75E-05
31	413.70	1.29E+01	+/-	4.12E-01	1.67E+00	2.94E-04	+/-	1.78E-05
M 32	423.47	8.38E-01	+/-	1.50E-01	1.67E+00	2.87E-04	+/-	1.79E-05
m 33	427.38	2.65E-01	+/-	7.10E-02	1.66E+00	2.85E-04	+/-	1.79E-05
34	452.17	1.65E+00	+/-	1.54E-01	1.64E+00	2.70E-04	+/-	1.78E-05
35	619.74	3.05E-01	+/-	6.63E-02	1.54E+00	2.02E-04	+/-	1.27E-05
36	653.74	2.25E-01	+/-	6.79E-02	1.52E+00	1.93E-04	+/-	1.16E-05
37	662.42	1.28E+00	+/-	1.35E-01	1.52E+00	1.90E-04	+/-	1.13E-05
38	722.01	5.05E-01	+/-	7.95E-02	1.49E+00	1.77E-04	+/-	9.59E-06
39	1085.91	2.76E-02	+/-	1.59E-02	1.38E+00	1.29E-04	+/-	5.82E-06
40	2236.00	1.00E+02	+/-	1.54E+00	1.27E+00	7.00E-05	+/-	3.84E-05

Segment: 5

Detector: DET01 (# 1)

Position: 5

Elapsed Live Time: 111.18 sec Elapsed Real Time: 115.00 sec

TRANSMISSION		RESULTS
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.044 +/- 0.0045
SE-75	264.65	0.000 +/- 0.0000	0.146 +/- 0.0034
SE-75	279.53	0.000 +/- 0.0000	0.152 +/- 0.0039
SE-75	400.65	0.000 +/- 0.0000	0.196 +/- 0.0057

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.25	1.98E+00	+/- 3.38E-01	4.10E+00 2.98E-07 +/- 1.94E-06
2	49.95	1.65E+01	+/- 1.35E+00	3.42E+00 1.57E-05 +/- 4.28E-05
3	60.17	5.07E+02	+/- 6.57E+00	3.16E+00 4.79E-05 +/- 8.23E-05
4	99.46	2.89E+01	+/- 1.17E+00	2.77E+00 2.78E-04 +/- 7.08E-05
5	111.68	4.08E+00	+/- 6.81E-01	2.71E+00 3.41E-04 +/- 3.82E-05
M 6	123.70	3.06E+00	+/- 2.73E-01	2.66E+00 3.89E-04 +/- 2.28E-05
m 7	125.97	1.17E+01	+/- 4.63E-01	2.65E+00 3.97E-04 +/- 2.37E-05
m 8	129.97	2.82E+01	+/- 8.48E-01	2.63E+00 4.09E-04 +/- 2.72E-05
M 9	144.90	1.50E+00	+/- 2.46E-01	2.53E+00 4.43E-04 +/- 4.49E-05
m 10	147.04	1.33E+00	+/- 2.33E-01	2.51E+00 4.46E-04 +/- 4.70E-05
m 11	149.35	1.82E+00	+/- 2.80E-01	2.49E+00 4.50E-04 +/- 4.91E-05
12	172.19	1.34E+00	+/- 4.15E-01	2.33E+00 4.67E-04 +/- 5.93E-05
13	196.21	5.62E-01	+/- 3.08E-01	2.19E+00 4.63E-04 +/- 5.59E-05
14	208.69	8.34E+00	+/- 5.36E-01	2.13E+00 4.56E-04 +/- 5.12E-05
15	244.70	4.70E-01	+/- 3.17E-01	1.98E+00 4.25E-04 +/- 3.51E-05

16	268.67	3.74E-01	+/-	2.61E-01	1.90E+00	4.02E-04	+/-	2.60E-05
17	300.10	6.59E-01	+/-	2.53E-01	1.86E+00	3.72E-04	+/-	1.87E-05
18	311.90	1.70E+00	+/-	2.79E-01	1.84E+00	3.62E-04	+/-	1.74E-05
19	323.87	1.04E+00	+/-	2.69E-01	1.83E+00	3.51E-04	+/-	1.68E-05
M 20	333.49	2.87E+00	+/-	2.67E-01	1.82E+00	3.43E-04	+/-	1.67E-05
m 21	336.13	1.81E+00	+/-	1.98E-01	1.81E+00	3.41E-04	+/-	1.67E-05
22	345.68	2.33E+00	+/-	2.27E-01	1.80E+00	3.33E-04	+/-	1.69E-05
23	369.15	6.38E-01	+/-	2.57E-01	1.78E+00	3.16E-04	+/-	1.77E-05
24	375.74	5.33E+00	+/-	3.78E-01	1.77E+00	3.11E-04	+/-	1.79E-05
M 25	380.92	9.92E-01	+/-	1.63E-01	1.76E+00	3.07E-04	+/-	1.81E-05
m 26	383.41	8.56E-01	+/-	1.42E-01	1.76E+00	3.06E-04	+/-	1.82E-05
27	393.61	2.52E+00	+/-	2.11E-01	1.75E+00	2.99E-04	+/-	1.85E-05
28	413.70	6.20E+00	+/-	2.64E-01	1.73E+00	2.86E-04	+/-	1.90E-05
29	423.28	4.98E-01	+/-	1.03E-01	1.72E+00	2.81E-04	+/-	1.91E-05
30	452.25	7.84E-01	+/-	1.04E-01	1.70E+00	2.65E-04	+/-	1.91E-05
31	512.22	5.40E-01	+/-	9.37E-02	1.65E+00	2.37E-04	+/-	1.79E-05
32	662.42	7.71E-01	+/-	9.01E-02	1.56E+00	1.90E-04	+/-	1.21E-05
33	722.01	3.26E-01	+/-	6.81E-02	1.53E+00	1.77E-04	+/-	1.01E-05
34	778.90	5.75E-02	+/-	2.99E-02	1.51E+00	1.66E-04	+/-	8.62E-06
35	1408.01	3.20E-02	+/-	2.47E-02	1.35E+00	1.00E-04	+/-	6.78E-06
36	2236.00	1.00E+02	+/-	1.52E+00	1.29E+00	5.76E-05	+/-	3.29E-05
37	2295.10	1.06E-01	+/-	5.74E-02	1.28E+00	5.53E-05	+/-	3.45E-05

Segment: 6

Detector: DET01 (# 1)

Position: 6

Elapsed Live Time: 111.83 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.059 +/- 0.0041
SE-75	264.65	0.000 +/- 0.0000	0.168 +/- 0.0038
SE-75	279.53	0.000 +/- 0.0000	0.176 +/- 0.0045
SE-75	400.65	0.000 +/- 0.0000	0.223 +/- 0.0063

PEAK ANALYSIS RESULTS		
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency				
1	32.24	2.03E+00	+/-	2.83E-01	4.10E+00	5.03E-07	+/-	3.13E-06
2	50.09	1.67E+01	+/-	1.32E+00	3.15E+00	2.19E-05	+/-	5.63E-05
3	60.17	4.20E+02	+/-	5.53E+00	2.93E+00	6.08E-05	+/-	9.94E-05
4	99.49	2.07E+01	+/-	1.01E+00	2.57E+00	3.07E-04	+/-	7.46E-05
5	111.61	9.64E-01	+/-	6.64E-01	2.52E+00	3.68E-04	+/-	4.02E-05
6	115.42	2.24E+00	+/-	6.22E-01	2.51E+00	3.84E-04	+/-	3.19E-05
M 7	125.96	7.68E+00	+/-	3.92E-01	2.47E+00	4.22E-04	+/-	2.47E-05
m 8	129.98	2.05E+01	+/-	7.37E-01	2.46E+00	4.33E-04	+/-	2.80E-05

9	161.39	1.13E+00	+/-	3.70E-01	2.26E+00	4.81E-04	+/-	5.63E-05
10	208.67	6.57E+00	+/-	4.60E-01	2.03E+00	4.72E-04	+/-	5.09E-05
11	244.70	2.43E-01	+/-	1.41E-01	1.89E+00	4.43E-04	+/-	3.54E-05
12	268.16	4.48E-01	+/-	2.49E-01	1.82E+00	4.22E-04	+/-	2.67E-05
13	311.90	1.56E+00	+/-	2.02E-01	1.76E+00	3.82E-04	+/-	1.81E-05
M 14	333.51	2.28E+00	+/-	2.29E-01	1.74E+00	3.65E-04	+/-	1.73E-05
m 15	336.36	1.28E+00	+/-	1.53E-01	1.74E+00	3.62E-04	+/-	1.73E-05
16	345.75	1.80E+00	+/-	2.10E-01	1.73E+00	3.55E-04	+/-	1.74E-05
17	375.76	4.01E+00	+/-	3.17E-01	1.70E+00	3.33E-04	+/-	1.84E-05
M 18	380.88	7.33E-01	+/-	1.38E-01	1.69E+00	3.30E-04	+/-	1.86E-05
m 19	383.62	6.38E-01	+/-	1.21E-01	1.69E+00	3.28E-04	+/-	1.87E-05
20	393.61	1.79E+00	+/-	1.76E-01	1.68E+00	3.22E-04	+/-	1.90E-05
21	413.70	4.80E+00	+/-	2.30E-01	1.67E+00	3.09E-04	+/-	1.95E-05
22	423.25	1.44E-01	+/-	9.18E-02	1.66E+00	3.04E-04	+/-	1.96E-05
23	452.39	4.57E-01	+/-	8.66E-02	1.64E+00	2.88E-04	+/-	1.97E-05
24	619.47	1.34E-01	+/-	4.51E-02	1.53E+00	2.22E-04	+/-	1.43E-05
25	662.42	6.20E-01	+/-	8.81E-02	1.51E+00	2.10E-04	+/-	1.26E-05
26	722.01	2.60E-01	+/-	6.29E-02	1.49E+00	1.95E-04	+/-	1.05E-05
27	867.39	5.27E-02	+/-	3.19E-02	1.43E+00	1.66E-04	+/-	7.45E-06
28	1001.03	3.59E-02	+/-	1.79E-02	1.40E+00	1.45E-04	+/-	6.25E-06
29	2236.00	1.00E+02	+/-	1.52E+00	1.26E+00	4.34E-05	+/-	2.42E-05

Segment: 7

Detector: DET01 (# 1)

Position: 7

Elapsed Live Time: 111.43 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.121 +/- 0.0064
SE-75	264.65	0.000 +/- 0.0000	0.250 +/- 0.0055
SE-75	279.53	0.000 +/- 0.0000	0.258 +/- 0.0062
SE-75	400.65	0.000 +/- 0.0000	0.316 +/- 0.0084

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency				
1	32.22	1.33E+00	+/-	3.19E-01	3.27E+00	5.47E-09	+/-	3.10E-08
2	50.09	2.03E+01	+/-	1.43E+00	2.50E+00	2.90E-06	+/-	6.81E-06
3	60.17	5.00E+02	+/-	6.50E+00	2.34E+00	1.60E-05	+/-	2.39E-05
4	99.42	2.38E+01	+/-	1.08E+00	2.10E+00	2.44E-04	+/-	5.51E-05
5	111.67	4.37E+00	+/-	6.50E-01	2.07E+00	3.35E-04	+/-	3.49E-05
M 6	123.79	1.89E+00	+/-	2.32E-01	2.04E+00	4.12E-04	+/-	2.39E-05
m 7	125.93	9.22E+00	+/-	3.99E-01	2.03E+00	4.24E-04	+/-	2.46E-05
m 8	129.99	2.69E+01	+/-	8.22E-01	2.02E+00	4.45E-04	+/-	2.77E-05
M 9	144.82	1.48E+00	+/-	2.19E-01	1.97E+00	5.05E-04	+/-	4.48E-05

m 10	147.14	1.57E+00	+/-	2.26E-01	1.96E+00	5.12E-04	+/-	4.72E-05
m 11	149.21	1.97E+00	+/-	2.59E-01	1.95E+00	5.17E-04	+/-	4.91E-05
12	161.91	7.53E-01	+/-	3.84E-01	1.90E+00	5.44E-04	+/-	5.79E-05
13	172.26	1.84E+00	+/-	4.15E-01	1.87E+00	5.55E-04	+/-	6.09E-05
14	204.19	2.93E+00	+/-	3.62E-01	1.77E+00	5.51E-04	+/-	5.50E-05
15	208.69	4.74E+00	+/-	4.95E-01	1.75E+00	5.47E-04	+/-	5.32E-05
16	256.08	2.85E-01	+/-	1.72E-01	1.64E+00	4.90E-04	+/-	3.18E-05
17	268.17	5.99E-01	+/-	3.14E-01	1.61E+00	4.74E-04	+/-	2.74E-05
18	300.10	7.15E-01	+/-	2.18E-01	1.58E+00	4.31E-04	+/-	1.99E-05
19	311.90	1.43E+00	+/-	2.03E-01	1.57E+00	4.17E-04	+/-	1.86E-05
M 20	333.47	2.91E+00	+/-	2.68E-01	1.55E+00	3.91E-04	+/-	1.76E-05
m 21	336.20	1.04E+00	+/-	1.36E-01	1.55E+00	3.88E-04	+/-	1.76E-05
22	345.68	1.56E+00	+/-	3.45E-01	1.54E+00	3.78E-04	+/-	1.76E-05
23	375.73	4.71E+00	+/-	3.46E-01	1.52E+00	3.48E-04	+/-	1.82E-05
M 24	380.85	7.99E-01	+/-	1.35E-01	1.52E+00	3.44E-04	+/-	1.83E-05
m 25	383.42	9.81E-01	+/-	1.49E-01	1.51E+00	3.42E-04	+/-	1.84E-05
26	393.59	1.94E+00	+/-	1.73E-01	1.51E+00	3.33E-04	+/-	1.86E-05
27	413.70	6.07E+00	+/-	2.65E-01	1.49E+00	3.17E-04	+/-	1.88E-05
28	423.20	3.22E-01	+/-	1.38E-01	1.49E+00	3.10E-04	+/-	1.88E-05
29	452.20	7.34E-01	+/-	1.06E-01	1.47E+00	2.90E-04	+/-	1.86E-05
M 30	658.38	6.15E-02	+/-	3.25E-02	1.38E+00	2.04E-04	+/-	1.19E-05
m 31	662.86	4.24E-01	+/-	9.48E-02	1.38E+00	2.03E-04	+/-	1.17E-05
32	722.01	3.32E-01	+/-	6.44E-02	1.36E+00	1.89E-04	+/-	9.99E-06
33	867.39	1.95E-02	+/-	1.83E-02	1.32E+00	1.62E-04	+/-	7.44E-06
34	1085.91	7.20E-02	+/-	2.55E-02	1.28E+00	1.35E-04	+/-	5.76E-06
35	1408.01	1.80E-02	+/-	1.27E-02	1.24E+00	1.05E-04	+/-	7.16E-06
36	2236.00	1.00E+02	+/-	1.53E+00	1.20E+00	5.07E-05	+/-	2.69E-05

Segment: 8

Detector: DET01 (# 1)

Position: 8

Elapsed Live Time: 110.07 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION		Sample Transmission
	Energy	Container Transmission	
SE-75	136.00	0.000 +/- 0.0000	0.257 +/- 0.0092
SE-75	264.65	0.000 +/- 0.0000	0.349 +/- 0.0076
SE-75	279.53	0.000 +/- 0.0000	0.363 +/- 0.0085
SE-75	400.65	0.000 +/- 0.0000	0.403 +/- 0.0104

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.26	1.62E+00 +/-	2.87E-01	2.32E+00 7.93E-06 +/- 7.65E-06
2	50.09	3.20E+01 +/-	1.87E+00	1.88E+00 5.97E-05 +/- 2.93E-05
3	60.16	9.13E+02 +/-	1.15E+01	1.79E+00 1.10E-04 +/- 3.84E-05
4	76.02	8.00E-01 +/-	4.93E-01	1.72E+00 2.01E-04 +/- 4.22E-05
5	99.49	3.15E+01 +/-	1.23E+00	1.66E+00 3.25E-04 +/- 3.30E-05
6	111.67	2.84E+00 +/-	6.94E-01	1.64E+00 3.75E-04 +/- 2.73E-05
7	115.35	1.65E+00 +/-	7.93E-01	1.63E+00 3.88E-04 +/- 2.59E-05
M 8	123.73	2.95E+00 +/-	2.58E-01	1.62E+00 4.13E-04 +/- 2.35E-05
m 9	125.94	1.34E+01 +/-	4.98E-01	1.62E+00 4.19E-04 +/- 2.31E-05
m 10	129.97	2.51E+01 +/-	7.76E-01	1.61E+00 4.29E-04 +/- 2.26E-05
11	144.62	7.70E-01 +/-	4.24E-01	1.59E+00 4.57E-04 +/- 2.25E-05
12	148.57	1.90E+00 +/-	3.87E-01	1.58E+00 4.62E-04 +/- 2.28E-05
13	189.75	5.01E-01 +/-	2.49E-01	1.53E+00 4.81E-04 +/- 2.61E-05
14	196.35	1.11E+00 +/-	3.62E-01	1.52E+00 4.79E-04 +/- 2.62E-05
15	208.66	7.82E+00 +/-	4.91E-01	1.51E+00 4.74E-04 +/- 2.60E-05
16	256.04	4.66E-01 +/-	1.37E-01	1.46E+00 4.39E-04 +/- 2.28E-05
17	300.10	6.15E-01 +/-	2.35E-01	1.42E+00 3.99E-04 +/- 1.88E-05
18	311.90	1.64E+00 +/-	2.18E-01	1.42E+00 3.88E-04 +/- 1.78E-05
M 19	333.32	2.43E+00 +/-	2.45E-01	1.41E+00 3.69E-04 +/- 1.62E-05
m 20	336.14	1.59E+00 +/-	1.77E-01	1.41E+00 3.67E-04 +/- 1.60E-05
21	345.67	1.88E+00 +/-	2.14E-01	1.41E+00 3.59E-04 +/- 1.54E-05
22	369.22	7.86E-01 +/-	2.30E-01	1.40E+00 3.39E-04 +/- 1.41E-05
23	375.74	3.44E+00 +/-	3.38E-01	1.39E+00 3.34E-04 +/- 1.38E-05
M 24	380.87	8.49E-01 +/-	1.41E-01	1.39E+00 3.30E-04 +/- 1.36E-05
m 25	383.67	8.97E-01 +/-	1.41E-01	1.39E+00 3.28E-04 +/- 1.35E-05
26	393.69	2.00E+00 +/-	1.91E-01	1.39E+00 3.21E-04 +/- 1.31E-05
27	413.70	5.04E+00 +/-	2.59E-01	1.38E+00 3.06E-04 +/- 1.25E-05
28	423.20	2.33E-01 +/-	9.38E-02	1.37E+00 3.00E-04 +/- 1.22E-05
29	452.17	5.72E-01 +/-	9.59E-02	1.36E+00 2.82E-04 +/- 1.16E-05
30	619.68	1.04E-01 +/-	4.64E-02	1.31E+00 2.06E-04 +/- 9.86E-06
31	662.42	6.53E-01 +/-	9.22E-02	1.29E+00 1.93E-04 +/- 9.41E-06
32	722.01	2.02E-01 +/-	5.29E-02	1.28E+00 1.78E-04 +/- 8.71E-06
33	1112.12	1.83E-02 +/-	1.30E-02	1.22E+00 1.26E-04 +/- 4.65E-06
34	2236.00	1.00E+02 +/-	1.54E+00	1.15E+00 1.19E-04 +/- 2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 110.54 sec

Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.273 +/- 0.0094
SE-75	264.65	0.000 +/- 0.0000	0.361 +/- 0.0079
SE-75	279.53	0.000 +/- 0.0000	0.369 +/- 0.0086
SE-75	400.65	0.000 +/- 0.0000	0.404 +/- 0.0104

PEAK ANALYSIS RESULTS				
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.92	1.25E+00 +/- 2.82E-01	2.26E+00	5.80E-09 +/- 3.51E-08
2	50.13	5.51E+01 +/- 2.36E+00	1.84E+00	3.14E-06 +/- 7.72E-06
3	60.17	8.82E+02 +/- 1.11E+01	1.75E+00	1.65E-05 +/- 2.58E-05
4	99.57	2.26E+01 +/- 1.07E+00	1.62E+00	2.37E-04 +/- 5.55E-05
5	115.28	3.60E+00 +/- 5.79E-01	1.60E+00	3.45E-04 +/- 2.91E-05
M 6	123.71	2.71E+00 +/- 2.44E-01	1.59E+00	3.93E-04 +/- 2.33E-05
m 7	125.97	1.23E+01 +/- 5.05E-01	1.59E+00	4.05E-04 +/- 2.41E-05
m 8	129.96	1.36E+01 +/- 5.35E-01	1.58E+00	4.24E-04 +/- 2.72E-05
9	148.57	3.34E+00 +/- 4.33E-01	1.56E+00	4.88E-04 +/- 4.79E-05
10	170.15	6.62E-01 +/- 2.87E-01	1.53E+00	5.21E-04 +/- 5.94E-05
11	204.11	1.15E+00 +/- 2.56E-01	1.49E+00	5.14E-04 +/- 5.34E-05
12	208.69	4.91E+00 +/- 4.21E-01	1.49E+00	5.11E-04 +/- 5.15E-05
M 13	288.19	1.95E-01 +/- 9.58E-02	1.42E+00	4.12E-04 +/- 2.09E-05
m 14	291.63	1.90E-01 +/- 9.30E-02	1.42E+00	4.07E-04 +/- 2.03E-05
15	300.10	5.59E-01 +/- 2.01E-01	1.42E+00	3.97E-04 +/- 1.90E-05
16	311.90	1.80E+00 +/- 2.08E-01	1.41E+00	3.83E-04 +/- 1.78E-05
17	323.54	8.58E-01 +/- 1.91E-01	1.41E+00	3.70E-04 +/- 1.72E-05
M 18	333.28	1.63E+00 +/- 1.86E-01	1.41E+00	3.59E-04 +/- 1.71E-05
m 19	336.30	1.33E+00 +/- 1.64E-01	1.40E+00	3.56E-04 +/- 1.71E-05
20	345.63	8.33E-01 +/- 1.60E-01	1.40E+00	3.46E-04 +/- 1.72E-05
21	369.29	6.17E-01 +/- 1.83E-01	1.39E+00	3.24E-04 +/- 1.77E-05
22	375.67	2.23E+00 +/- 2.61E-01	1.39E+00	3.18E-04 +/- 1.78E-05
M 23	380.94	3.81E-01 +/- 1.12E-01	1.39E+00	3.14E-04 +/- 1.79E-05
m 24	383.26	3.31E-01 +/- 9.69E-02	1.39E+00	3.12E-04 +/- 1.80E-05
25	393.78	6.39E-01 +/- 1.42E-01	1.39E+00	3.03E-04 +/- 1.81E-05
26	413.70	2.60E+00 +/- 1.81E-01	1.38E+00	2.88E-04 +/- 1.83E-05
27	451.94	3.92E-01 +/- 8.94E-02	1.36E+00	2.63E-04 +/- 1.81E-05
28	511.90	3.17E-01 +/- 8.73E-02	1.34E+00	2.33E-04 +/- 1.66E-05
29	662.42	5.26E-01 +/- 7.94E-02	1.29E+00	1.84E-04 +/- 1.12E-05
30	722.01	2.24E-01 +/- 5.02E-02	1.28E+00	1.72E-04 +/- 9.44E-06
31	964.13	2.92E-02 +/- 2.69E-02	1.23E+00	1.38E-04 +/- 6.28E-06
32	1085.91	2.46E-02 +/- 2.45E-02	1.22E+00	1.27E-04 +/- 5.58E-06
33	2236.00	1.00E+02 +/- 1.53E+00	1.15E+00	6.12E-05 +/- 3.31E-05
34	2295.28	1.38E-01 +/- 5.07E-02	1.15E+00	5.85E-05 +/- 3.46E-05

Segment: 10

Detector: DET01 (# 1)

Position: 10

Elapsed Live Time: 112.12 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.384 +/- 0.0118
SE-75	264.65	0.000 +/- 0.0000	0.461 +/- 0.0099
SE-75	279.53	0.000 +/- 0.0000	0.468 +/- 0.0107
SE-75	400.65	0.000 +/- 0.0000	0.523 +/- 0.0130

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.15	8.02E-01 +/- 1.86E-01	1.87E+00	1.69E-05 +/- 1.67E-05
2	50.17	2.08E+01 +/- 1.53E+00	1.59E+00	8.47E-05 +/- 4.23E-05
3	60.17	4.65E+02 +/- 6.07E+00	1.53E+00	1.37E-04 +/- 4.88E-05
4	99.48	1.89E+01 +/- 7.76E-01	1.44E+00	3.30E-04 +/- 3.40E-05
5	103.68	1.51E+01 +/- 7.11E-01	1.44E+00	3.46E-04 +/- 3.15E-05
6	111.58	6.75E-01 +/- 4.18E-01	1.43E+00	3.71E-04 +/- 2.74E-05
7	115.34	1.61E+00 +/- 5.19E-01	1.43E+00	3.82E-04 +/- 2.58E-05
M 8	123.55	1.88E+00 +/- 2.00E-01	1.42E+00	4.03E-04 +/- 2.32E-05
m 9	125.95	6.67E+00 +/- 3.52E-01	1.42E+00	4.08E-04 +/- 2.27E-05
m 10	129.96	1.09E+01 +/- 4.91E-01	1.41E+00	4.16E-04 +/- 2.21E-05
M 11	144.58	4.32E-01 +/- 1.26E-01	1.40E+00	4.39E-04 +/- 2.19E-05
m 12	147.19	7.64E-01 +/- 1.62E-01	1.40E+00	4.42E-04 +/- 2.21E-05
m 13	149.23	1.02E+00 +/- 1.94E-01	1.40E+00	4.44E-04 +/- 2.22E-05
M 14	162.05	4.97E-01 +/- 1.55E-01	1.39E+00	4.54E-04 +/- 2.34E-05
m 15	165.30	6.00E-01 +/- 1.74E-01	1.38E+00	4.56E-04 +/- 2.37E-05
16	170.47	4.19E-01 +/- 2.42E-01	1.38E+00	4.58E-04 +/- 2.41E-05
17	204.28	8.18E-01 +/- 2.34E-01	1.36E+00	4.57E-04 +/- 2.52E-05
18	208.68	3.26E+00 +/- 3.67E-01	1.36E+00	4.56E-04 +/- 2.51E-05
19	300.10	2.69E-01 +/- 1.67E-01	1.31E+00	3.96E-04 +/- 1.86E-05
20	311.90	1.24E+00 +/- 1.60E-01	1.30E+00	3.87E-04 +/- 1.76E-05
M 21	333.41	1.16E+00 +/- 1.59E-01	1.29E+00	3.71E-04 +/- 1.62E-05
m 22	336.40	6.60E-01 +/- 1.08E-01	1.29E+00	3.68E-04 +/- 1.60E-05
23	345.64	5.73E-01 +/- 1.65E-01	1.29E+00	3.62E-04 +/- 1.54E-05
24	369.09	5.55E-01 +/- 1.58E-01	1.28E+00	3.45E-04 +/- 1.43E-05
25	375.83	2.14E+00 +/- 1.91E-01	1.28E+00	3.40E-04 +/- 1.40E-05
26	393.45	7.04E-01 +/- 1.27E-01	1.27E+00	3.28E-04 +/- 1.34E-05
27	413.70	2.03E+00 +/- 1.56E-01	1.26E+00	3.15E-04 +/- 1.29E-05
28	423.40	1.46E-01 +/- 7.14E-02	1.26E+00	3.09E-04 +/- 1.26E-05
29	452.29	2.73E-01 +/- 7.68E-02	1.25E+00	2.92E-04 +/- 1.22E-05
30	662.42	3.82E-01 +/- 6.48E-02	1.20E+00	2.06E-04 +/- 1.03E-05
31	722.01	2.08E-01 +/- 5.29E-02	1.19E+00	1.89E-04 +/- 9.55E-06
32	2236.00	1.00E+02 +/- 1.52E+00	1.11E+00	9.04E-05 +/- 2.29E-05

Segment: 11

Detector: DET01 (# 1)

Position: 11

Elapsed Live Time: 112.71 sec Elapsed Real Time: 115.00 sec

		TRANSMISSION RESULTS	
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.361 +/- 0.0112
SE-75	264.65	0.000 +/- 0.0000	0.439 +/- 0.0094
SE-75	279.53	0.000 +/- 0.0000	0.446 +/- 0.0101
SE-75	400.65	0.000 +/- 0.0000	0.480 +/- 0.0120

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.89	4.95E-01 +/- 2.23E-01	1.95E+00	1.35E-03 +/- 8.77E-03
2	50.19	2.14E+01 +/- 1.45E+00	1.63E+00	5.98E-04 +/- 1.58E-03
3	60.17	3.29E+02 +/- 4.41E+00	1.57E+00	5.03E-04 +/- 8.46E-04
4	99.46	1.10E+01 +/- 7.31E-01	1.47E+00	4.09E-04 +/- 1.02E-04
5	111.71	1.46E+00 +/- 4.37E-01	1.46E+00	4.03E-04 +/- 4.46E-05
M 6	123.76	7.51E-01 +/- 1.65E-01	1.45E+00	4.00E-04 +/- 2.34E-05
m 7	125.97	4.05E+00 +/- 2.71E-01	1.45E+00	4.00E-04 +/- 2.37E-05
m 8	129.98	1.12E+01 +/- 5.19E-01	1.44E+00	3.99E-04 +/- 2.64E-05
9	148.57	1.14E+00 +/- 2.48E-01	1.43E+00	3.97E-04 +/- 4.23E-05
10	208.70	2.98E+00 +/- 3.12E-01	1.38E+00	3.88E-04 +/- 4.34E-05
11	311.90	1.44E+00 +/- 1.57E-01	1.33E+00	3.53E-04 +/- 1.69E-05
12	323.38	1.96E-01 +/- 1.49E-01	1.32E+00	3.48E-04 +/- 1.64E-05
M 13	333.42	1.12E+00 +/- 1.52E-01	1.32E+00	3.43E-04 +/- 1.63E-05
m 14	336.22	6.50E-01 +/- 1.05E-01	1.32E+00	3.42E-04 +/- 1.63E-05
15	345.72	5.15E-01 +/- 1.38E-01	1.32E+00	3.38E-04 +/- 1.66E-05
16	375.72	1.27E+00 +/- 2.14E-01	1.31E+00	3.25E-04 +/- 1.79E-05
M 17	380.82	4.48E-01 +/- 9.86E-02	1.31E+00	3.23E-04 +/- 1.81E-05
m 18	383.55	3.99E-01 +/- 8.64E-02	1.31E+00	3.21E-04 +/- 1.83E-05
19	393.66	7.76E-01 +/- 1.14E-01	1.31E+00	3.17E-04 +/- 1.87E-05
20	413.70	2.11E+00 +/- 1.47E-01	1.30E+00	3.08E-04 +/- 1.94E-05
21	452.30	2.29E-01 +/- 7.75E-02	1.29E+00	2.91E-04 +/- 2.00E-05
22	511.51	1.77E-01 +/- 5.11E-02	1.27E+00	2.67E-04 +/- 1.91E-05
23	662.42	1.87E-01 +/- 6.29E-02	1.23E+00	2.15E-04 +/- 1.30E-05
24	722.01	9.48E-02 +/- 4.40E-02	1.22E+00	1.97E-04 +/- 1.08E-05
25	1085.91	8.82E-03 +/- 8.82E-03	1.17E+00	1.27E-04 +/- 5.57E-06
26	2236.00	1.00E+02 +/- 1.51E+00	1.12E+00	5.79E-05 +/- 3.30E-05
27	2295.39	6.08E-02 +/- 3.08E-02	1.12E+00	5.67E-05 +/- 3.53E-05

Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 113.12 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.326 +/- 0.0104
SE-75	264.65	0.000 +/- 0.0000	0.404 +/- 0.0087
SE-75	279.53	0.000 +/- 0.0000	0.417 +/- 0.0095
SE-75	400.65	0.000 +/- 0.0000	0.473 +/- 0.0118

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.12	5.21E-01 +/- 1.49E-01	2.05E+00	2.49E-09 +/- 1.53E-08
2	50.05	1.02E+01 +/- 1.03E+00	1.71E+00	2.09E-06 +/- 5.28E-06
3	60.16	2.52E+02 +/- 3.49E+00	1.64E+00	1.30E-05 +/- 2.08E-05
4	99.48	9.08E+00 +/- 6.11E-01	1.53E+00	2.34E-04 +/- 5.59E-05
5	111.78	9.69E-01 +/- 4.05E-01	1.51E+00	3.26E-04 +/- 3.50E-05
6	115.31	6.10E-01 +/- 3.85E-01	1.51E+00	3.51E-04 +/- 2.94E-05
M 7	125.95	2.90E+00 +/- 2.40E-01	1.49E+00	4.16E-04 +/- 2.45E-05
m 8	130.02	6.98E+00 +/- 4.20E-01	1.49E+00	4.38E-04 +/- 2.82E-05
9	148.57	9.97E-01 +/- 2.27E-01	1.47E+00	5.08E-04 +/- 5.12E-05
10	161.26	2.88E-01 +/- 1.68E-01	1.46E+00	5.34E-04 +/- 6.08E-05
11	208.67	2.29E+00 +/- 2.48E-01	1.42E+00	5.31E-04 +/- 5.52E-05
12	300.10	4.40E-01 +/- 1.43E-01	1.36E+00	4.04E-04 +/- 1.94E-05
13	311.90	8.29E-01 +/- 1.23E-01	1.35E+00	3.88E-04 +/- 1.81E-05
M 14	333.49	7.46E-01 +/- 1.26E-01	1.34E+00	3.62E-04 +/- 1.72E-05
m 15	336.45	4.34E-01 +/- 8.79E-02	1.34E+00	3.59E-04 +/- 1.72E-05
M 16	342.16	1.99E-01 +/- 6.41E-02	1.34E+00	3.53E-04 +/- 1.72E-05
m 17	345.75	4.69E-01 +/- 1.10E-01	1.34E+00	3.49E-04 +/- 1.72E-05
18	369.19	2.54E-01 +/- 9.59E-02	1.32E+00	3.25E-04 +/- 1.77E-05
19	375.75	7.24E-01 +/- 1.67E-01	1.32E+00	3.19E-04 +/- 1.78E-05
M 20	380.91	3.00E-01 +/- 8.47E-02	1.32E+00	3.14E-04 +/- 1.80E-05
m 21	383.45	2.25E-01 +/- 6.79E-02	1.32E+00	3.12E-04 +/- 1.80E-05
22	393.69	5.38E-01 +/- 1.10E-01	1.31E+00	3.03E-04 +/- 1.82E-05
23	400.66	7.97E-02 +/- 5.00E-02	1.31E+00	2.98E-04 +/- 1.83E-05
24	413.70	1.28E+00 +/- 1.23E-01	1.31E+00	2.87E-04 +/- 1.84E-05
25	423.33	1.09E-01 +/- 4.79E-02	1.30E+00	2.80E-04 +/- 1.84E-05
26	452.61	1.75E-01 +/- 4.82E-02	1.29E+00	2.61E-04 +/- 1.82E-05
27	662.42	1.29E-01 +/- 4.41E-02	1.24E+00	1.82E-04 +/- 1.13E-05
28	722.01	1.32E-01 +/- 4.20E-02	1.23E+00	1.70E-04 +/- 9.57E-06
29	1112.12	1.75E-02 +/- 1.24E-02	1.18E+00	1.27E-04 +/- 5.46E-06
30	2236.00	1.00E+02 +/- 1.51E+00	1.13E+00	6.48E-05 +/- 3.54E-05
31	2278.13	4.58E-02 +/- 3.27E-02	1.13E+00	6.28E-05 +/- 3.65E-05

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 113.67 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.229 +/- 0.0081
SE-75	264.65	0.000 +/- 0.0000	0.321 +/- 0.0069
SE-75	279.53	0.000 +/- 0.0000	0.329 +/- 0.0076
SE-75	400.65	0.000 +/- 0.0000	0.384 +/- 0.0097

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	50.12	1.14E+01 +/- 1.00E+00	1.97E+00	5.08E-06 +/- 1.35E-05
2	60.17	1.33E+02 +/- 2.08E+00	1.87E+00	2.29E-05 +/- 3.88E-05
3	99.50	4.51E+00 +/- 4.49E-01	1.72E+00	2.51E-04 +/- 6.28E-05
M 4	111.59	1.54E+00 +/- 2.45E-01	1.70E+00	3.29E-04 +/- 3.68E-05
m 5	115.74	1.68E+00 +/- 2.48E-01	1.69E+00	3.52E-04 +/- 2.92E-05
M 6	126.01	1.80E+00 +/- 1.94E-01	1.68E+00	4.03E-04 +/- 2.40E-05
m 7	130.00	3.47E+00 +/- 2.94E-01	1.67E+00	4.19E-04 +/- 2.77E-05
8	208.70	1.15E+00 +/- 1.77E-01	1.56E+00	4.88E-04 +/- 5.34E-05
9	311.90	3.11E-01 +/- 1.12E-01	1.46E+00	3.74E-04 +/- 1.79E-05
M 10	333.40	3.38E-01 +/- 8.55E-02	1.45E+00	3.53E-04 +/- 1.73E-05
m 11	336.33	2.56E-01 +/- 6.95E-02	1.44E+00	3.50E-04 +/- 1.73E-05
12	341.11	8.69E-02 +/- 5.89E-02	1.44E+00	3.46E-04 +/- 1.74E-05
13	345.59	2.34E-01 +/- 9.75E-02	1.44E+00	3.42E-04 +/- 1.75E-05
14	375.76	4.37E-01 +/- 1.19E-01	1.42E+00	3.16E-04 +/- 1.85E-05
15	383.31	2.86E-01 +/- 8.78E-02	1.42E+00	3.11E-04 +/- 1.88E-05
16	393.48	1.47E-01 +/- 5.30E-02	1.41E+00	3.03E-04 +/- 1.90E-05
17	400.66	7.39E-02 +/- 4.57E-02	1.41E+00	2.98E-04 +/- 1.92E-05
18	413.70	6.05E-01 +/- 8.78E-02	1.40E+00	2.89E-04 +/- 1.94E-05
19	452.21	1.72E-01 +/- 5.66E-02	1.38E+00	2.67E-04 +/- 1.94E-05
20	1001.03	2.61E-02 +/- 1.51E-02	1.24E+00	1.41E-04 +/- 6.24E-06
21	1085.91	8.69E-03 +/- 8.69E-03	1.23E+00	1.32E-04 +/- 5.78E-06
22	1462.20	7.82E-02 +/- 2.61E-02	1.20E+00	1.01E-04 +/- 8.22E-06
23	2236.00	1.00E+02 +/- 1.50E+00	1.16E+00	5.36E-05 +/- 3.03E-05

Segment: 14

Detector: DET01 (# 1)

Position: 14

Elapsed Live Time: 114.02 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
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TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.384 +/- 0.0117
SE-75	264.65	0.000 +/- 0.0000	0.478 +/- 0.0102
SE-75	279.53	0.000 +/- 0.0000	0.494 +/- 0.0111
SE-75	400.65	0.000 +/- 0.0000	0.540 +/- 0.0132

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	50.10	6.36E+00 +/- 7.56E-01	1.59E+00	4.65E-05 +/- 1.15E-04
2	60.17	6.45E+01 +/- 1.22E+00	1.53E+00	9.59E-05 +/- 1.50E-04
3	99.51	2.20E+00 +/- 3.29E-01	1.44E+00	3.19E-04 +/- 7.49E-05
M	125.91	6.44E-01 +/- 1.19E-01	1.42E+00	4.12E-04 +/- 2.40E-05
m	130.01	1.64E+00 +/- 2.07E-01	1.41E+00	4.22E-04 +/- 2.68E-05
6	148.57	3.69E-01 +/- 1.99E-01	1.40E+00	4.51E-04 +/- 4.47E-05
7	208.66	5.75E-01 +/- 1.50E-01	1.34E+00	4.54E-04 +/- 4.70E-05
8	311.90	2.06E-01 +/- 9.16E-02	1.28E+00	3.71E-04 +/- 1.72E-05
9	375.77	2.98E-01 +/- 6.88E-02	1.26E+00	3.22E-04 +/- 1.72E-05
10	400.66	7.96E-02 +/- 4.69E-02	1.25E+00	3.06E-04 +/- 1.78E-05
11	413.70	3.08E-01 +/- 6.87E-02	1.25E+00	2.98E-04 +/- 1.80E-05
12	722.01	7.43E-02 +/- 3.40E-02	1.18E+00	1.81E-04 +/- 9.66E-06
13	1001.03	1.73E-02 +/- 1.22E-02	1.15E+00	1.37E-04 +/- 6.10E-06
14	1112.12	2.59E-02 +/- 1.50E-02	1.14E+00	1.26E-04 +/- 5.44E-06
15	1408.01	8.64E-03 +/- 8.65E-03	1.13E+00	1.05E-04 +/- 7.02E-06
16	2236.00	1.00E+02 +/- 1.49E+00	1.10E+00	7.64E-05 +/- 4.15E-05

Segment: 15

Detector: DET01 (# 1)

Position: 15

Elapsed Live Time: 114.22 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
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TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.458 +/- 0.0127
SE-75	264.65	0.000 +/- 0.0000	0.532 +/- 0.0114
SE-75	279.53	0.000 +/- 0.0000	0.542 +/- 0.0122
SE-75	400.65	0.000 +/- 0.0000	0.578 +/- 0.0141

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	50.02	3.97E+00 +/-	5.53E-01	1.47E+00 1.78E-06 +/- 4.63E-06
2	60.17	2.42E+01 +/-	6.85E-01	1.42E+00 1.23E-05 +/- 2.03E-05
3	99.33	9.69E-01 +/-	2.01E-01	1.35E+00 2.33E-04 +/- 5.75E-05
4	129.29	4.04E-01 +/-	2.46E-01	1.33E+00 4.21E-04 +/- 2.67E-05
5	208.84	2.03E-01 +/-	1.08E-01	1.28E+00 4.80E-04 +/- 5.22E-05
6	264.66	1.54E-01 +/-	7.38E-02	1.26E+00 4.05E-04 +/- 2.68E-05
7	376.26	7.47E-02 +/-	5.04E-02	1.23E+00 2.87E-04 +/- 1.59E-05
8	400.66	9.22E-02 +/-	4.96E-02	1.22E+00 2.70E-04 +/- 1.63E-05
9	413.70	8.29E-02 +/-	5.39E-02	1.22E+00 2.62E-04 +/- 1.65E-05
10	1112.12	2.59E-02 +/-	1.49E-02	1.13E+00 1.18E-04 +/- 5.22E-06
11	2236.00	1.00E+02 +/-	1.49E+00	1.09E+00 3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01 (# 1)

Position: 16

Elapsed Live Time: 114.29 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.611 +/- 0.0169
SE-75	264.65	0.000 +/- 0.0000	0.684 +/- 0.0146
SE-75	279.53	0.000 +/- 0.0000	0.685 +/- 0.0153
SE-75	400.65	0.000 +/- 0.0000	0.714 +/- 0.0171

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	60.19	4.93E+00 +/-	3.35E-01	1.26E+00 5.63E-05 +/- 2.41E-05
2	166.22	2.16E-01 +/-	1.06E-01	1.19E+00 2.58E-04 +/- 1.65E-05
3	778.90	1.87E-02 +/-	2.24E-02	1.09E+00 9.86E-05 +/- 6.05E-06
4	964.13	2.59E-02 +/-	1.49E-02	1.08E+00 8.21E-05 +/- 4.35E-06
5	1085.91	6.90E-02 +/-	2.44E-02	1.08E+00 7.51E-05 +/- 3.53E-06
6	2236.00	1.00E+02 +/-	1.49E+00	1.06E+00 6.28E-05 +/- 1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: LL85901731
Peak Locate Performed on: 12-18-07 6:21:19 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.84	0.1608	32.09	15.82
2	100.76	0.1037	50.05	31.97
3	121.00	0.0260	60.17	643.33
4	199.64	0.0558	99.48	134.41
5	224.03	0.0992	111.68	43.44
6	231.51	0.1249	115.42	21.93
7	247.39	0.2601	123.70	9.00
8	252.70	0.0803	125.95	69.91
9	260.66	0.0579	129.97	123.26
10	290.11	0.1983	144.83	14.14
11	294.70	0.2315	147.13	13.03
12	299.45	0.1666	149.24	18.74
13	323.80	0.1873	161.57	8.58
14	341.13	0.2845	170.32	6.70
15	345.12	0.2794	172.12	6.33
16	360.40	0.2659	179.86	6.72
17	380.79	0.2458	190.06	8.24
18	393.20	0.2021	196.26	10.88
19	418.03	0.0715	208.68	81.80
20	512.84	0.1969	256.09	11.28
21	537.03	0.2324	268.18	8.14
22	602.20	0.2466	300.77	7.47
23	625.88	0.1166	312.61	29.74
24	647.13	0.2012	323.23	5.89
25	667.33	0.1048	333.43	36.90
26	673.67	0.1434	336.28	22.07
27	692.03	0.1024	345.68	39.18
28	738.94	0.1504	369.14	17.17
29	752.16	0.0769	375.75	65.21
30	762.11	0.1384	380.89	23.61
31	767.91	0.1508	383.48	20.22
32	787.95	0.1060	393.64	35.03
33	829.55	0.0761	414.44	60.26
34	847.40	0.1527	423.36	15.77
35	905.07	0.1358	452.20	20.57
36	1168.66	0.2653	584.00	5.09

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	1240.00	0.2043	619.67	8.67
38	1307.78	0.2492	653.56	5.85
39	1326.94	0.1328	663.14	19.92
40	1446.21	0.1624	722.77	13.06
41	2667.90	0.2350	1333.61	5.19
42	4473.26	0.0266	2236.29	406.96
43	4591.20	0.1948	2295.26	7.65

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: LL85901731
 Peak Analysis Performed on: 12-18-07 6:21:19 PM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area Uncert.	Continuum Counts
1	61-	67	64.84	32.09	1.31E+03	76.88		2.01E+03
2	94-	104	100.76	50.05	2.87E+04	562.95		1.13E+05
3	114-	127	121.00	60.17	7.26E+05	1042.91		1.30E+05
4	194-	203	199.64	99.48	3.07E+04	386.47		5.27E+04
5	217-	227	224.03	111.68	3.86E+03	235.87		2.12E+04
6	227-	238	231.51	115.42	1.26E+03	272.52		2.70E+04
M 7	245-	266	248.08	123.70	2.74E+03	89.79		8.00E+03
m 8	245-	266	252.58	125.95	1.21E+04	150.64		7.31E+03
m 9	245-	266	260.62	129.97	2.79E+04	257.81		5.64E+03
M 10	283-	304	290.34	144.83	1.32E+03	74.94		4.83E+03
m 11	283-	304	294.93	147.13	1.68E+03	85.48		5.05E+03
m 12	283-	304	299.16	149.24	1.87E+03	92.12		5.35E+03
13	316-	328	323.80	161.57	4.64E+02	155.14		8.90E+03
M 14	338-	352	341.32	170.32	5.94E+02	73.41		3.98E+03
m 15	338-	352	344.90	172.12	6.30E+02	74.19		4.39E+03
16	356-	363	360.40	179.86	2.28E+02	92.72		4.16E+03
17	378-	387	380.79	190.06	1.79E+02	107.25		4.99E+03
18	389-	400	393.20	196.26	8.36E+02	118.58		5.27E+03
19	413-	425	418.03	208.68	7.67E+03	174.53		8.23E+03
20	508-	520	512.84	256.09	4.45E+02	87.96		2.77E+03
21	534-	542	537.03	268.18	1.91E+02	63.54		1.79E+03
22	594-	609	602.20	300.77	6.59E+02	88.84		2.40E+03
23	618-	633	625.88	312.61	1.93E+03	93.88		2.29E+03
24	639-	654	647.13	323.23	1.05E+03	86.66		2.15E+03
M 25	662-	677	667.54	333.43	3.34E+03	89.81		1.12E+03
m 26	662-	677	673.23	336.28	2.00E+03	63.14		1.18E+03
27	691-	699	692.03	345.68	2.46E+03	69.38		9.68E+02
28	731-	746	738.94	369.14	7.26E+02	87.00		2.21E+03
29	746-	759	752.16	375.75	5.10E+03	126.21		3.66E+03
M 30	759-	775	762.44	380.89	1.10E+03	55.23		9.79E+02
m 31	759-	775	767.64	383.48	1.08E+03	52.18		6.20E+02
32	780-	795	787.95	393.64	2.47E+03	70.73		8.44E+02
33	821-	837	829.55	414.44	6.66E+03	94.97		7.54E+02
34	844-	851	847.40	423.36	3.95E+02	34.26		3.84E+02
35	900-	912	905.07	452.20	8.43E+02	39.21		2.62E+02
36	1165-	1174	1168.66	584.00	5.93E+01	15.93		8.57E+01
37	1231-	1246	1240.00	619.67	1.50E+02	23.49		1.34E+02

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	1299-	1316	1307.78	653.56	3.49E+01	27.19	2.13E+02	
39	1323-	1335	1326.94	663.14	7.27E+02	32.96	1.30E+02	
40	1441-	1454	1446.21	722.77	3.12E+02	24.43	1.00E+02	
41	2663-	2674	2667.90	1333.61	6.60E+01	10.92	2.10E+01	
42	4465-	4483	4473.26	2236.29	1.80E+05	426.35	4.24E+02	
43	4586-	4598	4591.20	2295.26	1.11E+02	16.18	5.09E+01	

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: LL85901731
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	0.994	2236.00*	100.00	7.812E+02	1.792E+02
Np-237	0.966	300.10*	6.63	1.008E+01	1.361E+00
		311.90*	38.60	5.199E+00	2.556E-01
Pu-239	0.962	413.70*	0.00	5.644E+05	1.322E+04
Pu-239A	0.968	129.29*	0.01	4.805E+05	1.224E+04
Am-241	0.964	662.42*	0.00	3.303E+05	1.529E+04
Am-241D	0.960	722.01*	0.00	3.089E+05	2.439E+04
Pu-241	0.968	148.57*	0.00	9.671E+05	5.100E+04

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-18-07 6:21:19 PM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	32.09	1.1630E+01	5.90
2	50.05	2.5578E+02	1.98
3	60.17	6.4697E+03	0.30
4	99.48	2.7377E+02	1.28
5	111.68	3.4372E+01	6.12
6	115.42	1.1227E+01	21.63
M 7	123.70	2.4407E+01	3.29
m 8	125.95	1.0756E+02	1.27
M 10	144.83	1.1764E+01	5.68
m 11	147.13	1.4984E+01	5.09
13	161.57	4.1345E+00	33.44
M 14	170.32	5.2902E+00	12.37
m 15	172.12	5.6174E+00	11.77
16	179.86	2.0356E+00	40.59
17	190.06	1.5953E+00	59.91
18	196.26	7.4459E+00	14.19
19	208.68	6.8361E+01	2.29
20	256.09	3.9698E+00	19.75
21	268.18	1.7021E+00	33.27
24	323.23	9.3290E+00	8.28
M 25	333.43	2.9743E+01	2.70
m 26	336.28	1.7795E+01	3.17
27	345.68	2.1960E+01	2.83
28	369.14	6.4676E+00	11.99
29	375.75	4.5407E+01	2.49
M 30	380.89	9.8207E+00	5.02
m 31	383.48	9.6644E+00	4.82
32	393.64	2.2012E+01	2.87
34	423.36	3.5159E+00	8.69
35	452.20	7.5120E+00	4.66
36	584.00	5.2840E-01	26.87
37	619.67	1.3386E+00	15.64
38	653.56	3.1086E-01	77.93
41	1333.61	5.8812E-01	16.55
43	2295.26	9.9035E-01	14.56

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	8.64E+02 +/-	1.28E+02	2.11E-02 +/-	3.13E-03
SE-75	< 1.34E-01 +/-	8.63E-03	< 3.27E-06 +/-	2.11E-07
EU-152x	< 2.63E-01 +/-	1.94E-02	< 6.41E-06 +/-	4.72E-07
U-233	< 9.21E+03 +/-	7.07E+02	< 2.25E-01 +/-	1.72E-02
U-235	< 1.70E-01 +/-	2.01E-02	< 4.15E-06 +/-	4.90E-07
Np-237	5.16E+00 +/-	2.46E-01	1.26E-04 +/-	5.99E-06
Pu-238	2.11E+04 +/-	6.26E+03	5.15E-01 +/-	1.53E-01
U-238	5.82E+00 +/-	1.36E+00	1.42E-04 +/-	3.33E-05
Pu-239	6.06E+05 +/-	1.54E+04	1.48E+01 +/-	3.76E-01
Pu-239A	5.45E+05 +/-	1.35E+04	1.33E+01 +/-	3.28E-01
Am-241	3.44E+05 +/-	1.65E+04	8.38E+00 +/-	4.03E-01
Am-241D	3.26E+05 +/-	2.33E+04	7.95E+00 +/-	5.68E-01
Pu-241	1.01E+06 +/-	6.42E+04	2.47E+01 +/-	1.57E+00

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

Np-237	7.33E-03	+/-	3.49E-04
Pu-238	1.23E-03	+/-	3.65E-04
U-238	1.74E+01	+/-	4.07E+00
Pu-239	9.75E+00	+/-	2.48E-01
Pu-239A	8.78E+00	+/-	2.17E-01
Am-241	1.00E-01	+/-	4.82E-03
Pu-241	9.81E-03	+/-	6.21E-04

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	7.81E+02	+/-	1.79E+02	1.91E-02
SE-75	< 5.51E-01	+/-	5.02E-03	< 1.35E-05
EU-152x	< 6.15E-01	+/-	1.11E-02	< 1.50E-05
U-233	< 4.15E+04	+/-	8.91E+02	< 1.01E+00
U-235	< 8.02E-01	+/-	1.82E-02	< 1.96E-05
Np-237	5.37E+00	+/-	2.51E-01	1.31E-04
Pu-238	< 6.53E+04	+/-	1.23E+03	< 1.59E+00
U-238	< 1.45E+01	+/-	2.29E-01	< 3.53E-04
Pu-239	5.64E+05	+/-	1.32E+04	1.38E+01
Pu-239A	4.80E+05	+/-	1.22E+04	1.17E+01
Am-241	3.30E+05	+/-	1.53E+04	8.06E+00
Am-241D	3.09E+05	+/-	2.44E+04	7.53E+00
Pu-241	9.67E+05	+/-	5.10E+04	2.36E+01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

Np-237	7.62E-03	+/-	3.57E-04
Pu-239	9.09E+00	+/-	2.13E-01
Pu-239A	7.74E+00	+/-	1.97E-01
Am-241	9.64E-02	+/-	4.46E-03
Pu-241	9.35E-03	+/-	4.93E-04

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.931 +/- 8.3765
Matrix Longitudinal Ratio: 0.929 +/- 0.1036

Source Vertical Ratio: 0.785 +/- 0.4289
Matrix Vertical Ratio: 0.846 +/- 0.0234

NUDS could not find the transmission peak in one radial segment.

Drum ID	: S100-2494	Gross Weight (kg)	: 54.0
Sequence Number	: 2494	Fill Height (%)	: 100.0
Assay Date	: 12/12/07 08:56:08	Density (g/cc)	: 0.11
Batch Number	:	Net Weight (kg)	: 22.20
Site ID	:	Waste Matrix Code	:
		TRUCON	:

Errors at 1.00 Sigma			
TRU Alpha Activity Concentration:	4.19e-04	+/-	5.12e-05 Ci/g
Total Pu-239 Equiv Activity:	9.69e+00	+/-	1.14e+00 Ci
Total Pu-239 Fissile Gram Equiv:	1.03e+02	+/-	1.75e+01 g
Decay Heat:	2.97e-01	+/-	3.59e-02 W
Total Pu Mass:	1.09e+02	+/-	1.75e+01 g
TMU:	17.09%		
Waste Classification:	TRU		

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
------------------	---------------------	-------------------------------

Pu-238	8.77e-03	6.19e+00
Pu-239	9.42e+01	4.63e-02
Pu-240	5.60e+00	7.71e-01
Pu-241	1.83e-01	6.05e-01
Pu-242	3.09e-02	1.00e+01
Am-241	4.94e-01	4.28e-01
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	0.00e+00	0.00e+00

Activity Errors

Isotope	1.00 Sigma Mass (g)	Alpha Activity/ Error/Isotope Mass (g)	1.00 Sigma Isotope (Ci)	MDA Error/Isotope (Ci)	MDA (g)
Pu-238	9.55e-03	1.74e-03	1.64e-01	2.97e-02	3.05e-03
Pu-239	1.02e+02	1.75e+01	6.36e+00	1.09e+00	3.05e-01
Pu-240	6.10e+00	1.04e+00	1.38e+00	2.37e-01	0.00e+00
Pu-241	1.99e-01	3.41e-02	2.06e+01	3.53e+00	6.39e-03
Pu-242	3.36e-02	6.65e-03	1.32e-04	2.61e-05	0.00e+00
Am-241	4.09e-01	6.86e-02	1.40e+00	2.35e-01	6.33e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	1.35e-02	2.34e-03	9.54e-06	1.65e-06	1.88e-03
*U-235	<LLD	0.00e+00	0.00e+00	0.00e+00	3.34e-01
U-238	2.21e+01	6.92e+00	7.41e-06	2.33e-06	1.84e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	3.21e+00
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Date

Reviewer Signature

Date

Software Version: GWAS v2.3bGEN
 Counter Number: SGS
 Data Review for Container: S100-2494
 Item Description Code: \Count Type: DEBRIS
 Sequence Number: 2494
 Assayed on: 12/12/07 08:56:08
 Report Generated: 12/12/07 09:55:36
 AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

REVIEW Pu-240 Wt Pct +2 Sigma error <5.69> less than <5.87> Review MGA Results
 Pu-240 Wt Pct error <0.77> is within limits
 Pu-238 Wt Pct error <6.19> is within limits
 REVIEW QFIT <1.22> > <1.20> Review MGA Results

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.107> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <1.52e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <1.52> is acceptable in Segment 1
 Pulser value <1.00> is within range in Segment 1
 DEAD TIME percentage <1.90> is acceptable in Segment 2
 Pulser value <1.00> is within range in Segment 2
 DEAD TIME percentage <4.30> is acceptable in Segment 3
 Pulser value <0.99> is within range in Segment 3
 DEAD TIME percentage <14.73> is acceptable in Segment 4
 Pulser value <0.99> is within range in Segment 4
 DEAD TIME percentage <27.05> is acceptable in Segment 5
 Pulser value <0.97> out of range in Segment 5
 DEAD TIME percentage <26.96> is acceptable in Segment 6
 Pulser value <0.98> is within range in Segment 6
 DEAD TIME percentage <16.68> is acceptable in Segment 7
 Pulser value <1.01> is within range in Segment 7
 DEAD TIME percentage <6.10> is acceptable in Segment 8
 Pulser value <0.99> is within range in Segment 8
 DEAD TIME percentage <2.02> is acceptable in Segment 9
 Pulser value <1.00> is within range in Segment 9
 DEAD TIME percentage <1.50> is acceptable in Segment 10
 Pulser value <0.99> is within range in Segment 10
 DEAD TIME percentage <1.26> is acceptable in Segment 11
 Pulser value <0.99> is within range in Segment 11
 DEAD TIME percentage <1.06> is acceptable in Segment 12
 Pulser value <0.99> is within range in Segment 12
 DEAD TIME percentage <0.85> is acceptable in Segment 13
 Pulser value <0.99> is within range in Segment 13
 DEAD TIME percentage <0.77> is acceptable in Segment 14
 Pulser value <0.99> is within range in Segment 14
 DEAD TIME percentage <0.71> is acceptable in Segment 15
 Pulser value <0.99> is within range in Segment 15
 DEAD TIME percentage <0.71> is acceptable in Segment 16
 Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
 Transmission results are acceptable in Segment 2
 Transmission results are acceptable in Segment 3
 Transmission results are acceptable in Segment 4
 Transmission results are acceptable in Segment 5
 Transmission results are acceptable in Segment 6
 REVIEW Low Transmission Line <136.000000> <<0.001> found in Segment 7
 Transmission results are acceptable in Segment 8

Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

REVIEW Reduced chi squared fit value <6.27e+00> exceeds limit <3.00> for energy peak <129.96> in Segment 4
REVIEW Reduced chi squared fit value <2.00e+01> exceeds limit <3.00> for energy peak <129.92> in Segment 5
REVIEW Reduced chi squared fit value <1.76e+01> exceeds limit <3.00> for energy peak <129.93> in Segment 6
REVIEW Reduced chi squared fit value <9.88e+00> exceeds limit <3.00> for energy peak <129.96> in Segment 7
REVIEW Reduced chi squared fit value <3.81e+00> exceeds limit <3.00> for energy peak <663.15> in the .A04

Section 7 - FGE MASS REVIEW

REVIEW FGE Mass <120.60> > <110.00>

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

Am-241 ratio <250.57> is above lower limit <200.00>
Np-237 ratio <7575.96> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <102.49> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Am-241D > Am-241A: Calculation not performed

Independent Reviewer: _____ Date: _____

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS
Data Review for Container: S100-2494
Item Description Code:
Sequence Number: 2494
Assayed on: 12/12/07 08:56:08
AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA Pu-240 Wt Pct +2 Sigma error is less than lower limit.	
QFIT is greater than upper limit.	
SECTION 4 - PULSER Pulser value out of range in Segment 5	
SECTION 5 - TRANSMISSION Low Transmission Line 136.0 less than 0.001 found in Segment 7	
SECTION 6 - REDUCED CHI SQUARED FIT Chi square failure for 130.0 Kev in Segment 4 Chi square failure for 129.9 Kev in Segment 5 Chi square failure for 129.9 Kev in Segment 6 Chi square failure for 130.0 Kev in Segment 7 Chi square failure for 663.2 KeV in .A04 Spectrum.	
SECTION 7 - FGE MASS FGE Mass is greater than upper limit.	
SECTION 9 - IDC COUNT TYPE IDC is not available.	

Technical Reviewer: _____ Date: _____

***** M G A R E P O R T *****

Report generated on:

12-12-07 9:53:24 AM

MGA version: MGA V9.5 CI

Spectrum ID: 11202494.CNF Sens : 30.0% LT: 46.2 Mins DT: 18.37
Measurement date: 12-12-07 Declared date: 12-12-07

Sample ID: S100-2494 Detector: Total counts: 1.319E+07

Pu g/cm² = 0.8187 Cd g/cm² = 1.7878 FWHM at 122 keV = 614 eV
QFIT = 1.22 FWHM at 208 keV = 781 eV
NQFIT = 1.01

Isotope	Relative to Pu-239	%*		Relative to Pu-241	%*		Isotope analysis at			
		Meas. date	Decl. date		% weight	% Err	% weight	% Err		
Pu-238	0.000093	6.2	6.2	0.0479	6.2	0.00877	6.19	0.00877	6.19	
Pu-239	1.000000	0.0	0.4	513.8539	0.6	94.17626	0.05	94.17626	0.05	
Pu-240	0.059472	0.8	0.8	30.5598	0.9	5.60082	0.77	5.60082	0.77	
Pu-241	0.001946	0.6	0.5	1.0000	0.0	0.18327	0.60	0.18327	0.60	
Pu-242	(New alg.)			0.1684 (10)		0.03087 (10)		0.03087 (10)		
Am-241	0.005246	0.4	0.3	2.6955	0.6	0.49401	0.43	0.49401	0.43	

Pu-240 effective (meas. date) = 5.675 +/- 0.84%
Am-241 separated about 27.009 +/- 0.142 years ago
Am/Pu-241 weight ratio = 2.69549 +/- 0.62%

Messages :

Lead x-rays detected.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Report for: S100-2494 12-12-07 9:53:38 AM Page 1

Gamma Waste Assay

Sample Information

File Name:	C:\WAS\DATA\2500\11102494.S11		
Sample ID:	S100-2494	Count Sequence Number:	2494
Assay Start:	12-12-07 8:56:09 AM		
Description 1:			
Description 2:			
Location:			
Comment:			
Waste Type:			
Weight:	Gross: 54000.0 g	Net: 22200.0 g	
Density:	0.107 g /ml		
Container Type:	55 Gal Galv		
Container:	Volume: 208000. ml	Full:	100.0 %

System Configuration

Counter ID Number:	SGS	
Arrangement Description:	SGS	
Segments:	Number: 16	Offset: 0
Scanning Platform:	Start: 934 mm	Delta: -51 mm
Count Type:	Daily 100g Drum Check	
Collimator/Geometry Setting:	0	
Transmission Mode:	Two pass	
Transmission Source:	0	

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps

Geometric Correction Factor(SWCONTGCF): 0.760

Date of efficiency calibration approval: 8-27-2003 2:05:34 PM

Mu Factors response file: Lucite

Transmission Calib. Time: 12-11-2007 9:07:38 AM 22209

Reviewed by: _____ Date: _____

Segment Results

Segment: 1 Detector: DET01 (# 1) Position: 1

Elapsed Live Time: 113.25 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.361 +/- 0.0094
SE-75	264.65	0.000 +/- 0.0000	0.445 +/- 0.0031
SE-75	279.53	0.000 +/- 0.0000	0.463 +/- 0.0049
SE-75	400.65	0.000 +/- 0.0000	0.513 +/- 0.0074

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.78	1.33E+00 +/- 2.26E-01	1.95E+00	3.88E-10 +/- 2.80E-09
2	48.81	3.18E+00 +/- 5.19E-01	1.64E+00	6.14E-07 +/- 1.89E-06
3	60.09	8.73E+00 +/- 5.67E-01	1.57E+00	6.26E-06 +/- 1.16E-05
4	384.67	9.56E-02 +/- 6.21E-02	1.28E+00	2.20E-04 +/- 1.41E-05
5	564.76	4.84E-02 +/- 3.35E-02	1.23E+00	1.47E-04 +/- 1.16E-05
6	1001.03	8.80E-03 +/- 8.80E-03	1.17E+00	9.18E-05 +/- 4.92E-06
7	1112.12	8.80E-03 +/- 8.80E-03	1.16E+00	8.48E-05 +/- 4.39E-06
8	2236.00	1.00E+02 +/- 1.51E+00	1.11E+00	3.40E-05 +/- 2.15E-05

Segment: 2 Detector: DET01 (# 1) Position: 2

Elapsed Live Time: 112.82 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.405 +/- 0.0091
SE-75	264.65	0.000 +/- 0.0000	0.527 +/- 0.0035
SE-75	279.53	0.000 +/- 0.0000	0.548 +/- 0.0054
SE-75	400.65	0.000 +/- 0.0000	0.586 +/- 0.0081

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.92	1.30E+00 +/-	2.24E-01	1.82E+00 1.85E-05 +/- 1.16E-04
2	49.24	2.51E+00 +/-	6.06E-01	1.56E+00 7.99E-05 +/- 2.11E-04
3	60.01	1.64E+01 +/-	7.15E-01	1.50E+00 1.32E-04 +/- 2.14E-04
4	95.32	4.08E+00 +/-	9.36E-01	1.42E+00 2.95E-04 +/- 9.00E-05
5	129.29	1.10E+00 +/-	5.06E-01	1.39E+00 3.88E-04 +/- 2.47E-05
6	662.42	3.99E-02 +/-	2.43E-02	1.17E+00 1.86E-04 +/- 1.15E-05
7	722.01	3.41E-02 +/-	2.29E-02	1.16E+00 1.71E-04 +/- 9.64E-06
8	1001.03	7.09E-02 +/-	2.51E-02	1.13E+00 1.28E-04 +/- 5.83E-06
9	2236.00	1.00E+02 +/-	1.51E+00	1.09E+00 9.73E-05 +/- 5.41E-05

Segment: 3

Detector: DET01 (# 1)

Position: 3

Elapsed Live Time: 110.05 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.354 +/- 0.0103
SE-75	264.65	0.000 +/- 0.0000	0.468 +/- 0.0033
SE-75	279.53	0.000 +/- 0.0000	0.465 +/- 0.0051
SE-75	400.65	0.000 +/- 0.0000	0.523 +/- 0.0076

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.10	5.45E+00 +/-	4.64E-01	1.96E+00 3.49E-06 +/- 3.33E-06
2	60.14	7.70E+01 +/-	1.50E+00	1.58E+00 8.06E-05 +/- 2.79E-05
3	99.33	3.44E+01 +/-	1.39E+00	1.49E+00 2.96E-04 +/- 3.03E-05
4	104.05	2.71E+01 +/-	1.21E+00	1.48E+00 3.20E-04 +/- 2.86E-05
5	111.65	7.39E+00 +/-	1.09E+00	1.47E+00 3.54E-04 +/- 2.60E-05
6	116.02	4.97E+00 +/-	1.29E+00	1.47E+00 3.72E-04 +/- 2.47E-05
M 7	125.94	4.40E+00 +/-	4.02E-01	1.46E+00 4.08E-04 +/- 2.27E-05
m 8	129.98	2.54E+01 +/-	9.64E-01	1.45E+00 4.20E-04 +/- 2.22E-05
9	148.57	3.29E+00 +/-	7.00E-01	1.43E+00 4.63E-04 +/- 2.25E-05
10	172.56	2.17E+00 +/-	8.87E-01	1.40E+00 4.90E-04 +/- 2.49E-05
11	204.19	5.36E+00 +/-	4.90E-01	1.37E+00 4.93E-04 +/- 2.59E-05
12	208.67	1.20E+01 +/-	8.37E-01	1.36E+00 4.92E-04 +/- 2.59E-05

13	244.70	7.75E-01	+/-	4.49E-01	1.33E+00	4.68E-04	+/-	2.38E-05
14	300.10	8.15E-01	+/-	5.35E-01	1.31E+00	4.16E-04	+/-	1.88E-05
15	311.90	1.06E+00	+/-	4.09E-01	1.30E+00	4.04E-04	+/-	1.79E-05
16	324.47	1.81E+00	+/-	4.70E-01	1.30E+00	3.92E-04	+/-	1.69E-05
M 17	333.46	7.33E+00	+/-	4.76E-01	1.29E+00	3.84E-04	+/-	1.63E-05
m 18	336.39	3.06E+00	+/-	2.68E-01	1.29E+00	3.81E-04	+/-	1.61E-05
19	345.70	6.76E+00	+/-	3.72E-01	1.29E+00	3.72E-04	+/-	1.56E-05
20	368.63	2.58E+00	+/-	3.39E-01	1.28E+00	3.52E-04	+/-	1.44E-05
21	375.77	1.25E+01	+/-	6.29E-01	1.28E+00	3.46E-04	+/-	1.41E-05
M 22	380.93	2.76E+00	+/-	2.73E-01	1.27E+00	3.42E-04	+/-	1.38E-05
m 23	383.61	2.50E+00	+/-	2.43E-01	1.27E+00	3.40E-04	+/-	1.37E-05
24	393.58	5.41E+00	+/-	3.20E-01	1.27E+00	3.31E-04	+/-	1.34E-05
25	413.70	1.59E+01	+/-	4.51E-01	1.26E+00	3.16E-04	+/-	1.28E-05
26	423.40	9.92E-01	+/-	1.91E-01	1.26E+00	3.09E-04	+/-	1.26E-05
27	452.22	2.32E+00	+/-	1.79E-01	1.25E+00	2.89E-04	+/-	1.20E-05
28	619.56	1.76E-01	+/-	6.95E-02	1.21E+00	2.09E-04	+/-	1.01E-05
29	646.70	1.10E-01	+/-	4.70E-02	1.21E+00	2.00E-04	+/-	9.81E-06
30	662.42	7.53E-01	+/-	1.02E-01	1.20E+00	1.95E-04	+/-	9.62E-06
31	689.69	9.20E-02	+/-	4.32E-02	1.20E+00	1.87E-04	+/-	9.29E-06
32	722.01	3.83E-01	+/-	6.53E-02	1.19E+00	1.79E-04	+/-	8.87E-06
33	1085.91	1.80E-02	+/-	1.28E-02	1.15E+00	1.28E-04	+/-	4.75E-06
34	2236.00	1.00E+02	+/-	1.52E+00	1.11E+00	1.32E-04	+/-	3.24E-05

Segment: 4

Detector: DET01 (# 1)

Position: 4

Elapsed Live Time: 98.06 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.326 +/- 0.0124
SE-75	264.65	0.000 +/- 0.0000	0.485 +/- 0.0089
SE-75	279.53	0.000 +/- 0.0000	0.496 +/- 0.0101
SE-75	400.65	0.000 +/- 0.0000	0.535 +/- 0.0124

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency				
1	32.04	1.17E+01	+/-	7.40E-01	2.06E+00	1.18E-07	+/-	7.21E-07
2	50.20	6.53E+00	+/-	1.66E+00	1.71E+00	1.08E-05	+/-	2.69E-05
3	60.14	4.44E+02	+/-	6.09E+00	1.64E+00	3.61E-05	+/-	5.75E-05
4	75.64	4.29E+00	+/-	1.56E+00	1.58E+00	1.12E-04	+/-	8.88E-05
5	99.36	1.77E+02	+/-	3.73E+00	1.53E+00	2.64E-04	+/-	6.34E-05
6	111.67	4.01E+01	+/-	2.15E+00	1.51E+00	3.35E-04	+/-	3.63E-05
7	116.35	1.76E+01	+/-	2.88E+00	1.51E+00	3.58E-04	+/-	2.82E-05
M 8	125.94	2.38E+01	+/-	8.38E-01	1.50E+00	3.99E-04	+/-	2.37E-05

m 9	129.96	1.60E+02	+/-	2.91E+00	1.49E+00	4.14E-04	+/-	2.68E-05
10	144.73	3.46E+00	+/-	9.28E-01	1.47E+00	4.55E-04	+/-	4.31E-05
11	148.57	1.77E+01	+/-	1.26E+00	1.46E+00	4.63E-04	+/-	4.66E-05
12	165.33	3.24E+00	+/-	9.72E-01	1.43E+00	4.84E-04	+/-	5.63E-05
13	171.64	3.75E+00	+/-	1.59E+00	1.42E+00	4.88E-04	+/-	5.76E-05
14	179.74	1.86E+00	+/-	1.28E+00	1.41E+00	4.90E-04	+/-	5.79E-05
15	189.95	4.69E+00	+/-	8.11E-01	1.39E+00	4.89E-04	+/-	5.65E-05
16	196.27	7.01E+00	+/-	1.18E+00	1.38E+00	4.87E-04	+/-	5.48E-05
17	208.67	9.95E+01	+/-	2.19E+00	1.37E+00	4.80E-04	+/-	5.05E-05
18	244.70	2.16E+00	+/-	7.96E-01	1.32E+00	4.48E-04	+/-	3.50E-05
19	256.04	6.06E+00	+/-	8.29E-01	1.31E+00	4.36E-04	+/-	3.06E-05
M 20	264.61	1.54E+00	+/-	3.37E-01	1.30E+00	4.27E-04	+/-	2.75E-05
m 21	268.19	5.22E+00	+/-	6.27E-01	1.30E+00	4.23E-04	+/-	2.63E-05
22	298.11	3.29E+00	+/-	8.92E-01	1.28E+00	3.91E-04	+/-	1.92E-05
23	311.90	5.43E+00	+/-	6.77E-01	1.28E+00	3.77E-04	+/-	1.75E-05
M 24	321.66	4.23E+00	+/-	5.46E-01	1.28E+00	3.68E-04	+/-	1.69E-05
m 25	324.10	5.89E+00	+/-	6.12E-01	1.28E+00	3.66E-04	+/-	1.68E-05
M 26	333.39	4.42E+01	+/-	1.21E+00	1.27E+00	3.57E-04	+/-	1.65E-05
m 27	336.37	1.53E+01	+/-	5.96E-01	1.27E+00	3.54E-04	+/-	1.65E-05
M 28	342.15	4.55E+00	+/-	3.31E-01	1.27E+00	3.49E-04	+/-	1.65E-05
m 29	345.69	3.91E+01	+/-	1.14E+00	1.27E+00	3.46E-04	+/-	1.65E-05
30	368.97	2.75E+00	+/-	1.01E+00	1.26E+00	3.26E-04	+/-	1.70E-05
31	375.74	7.32E+01	+/-	1.75E+00	1.26E+00	3.21E-04	+/-	1.71E-05
M 32	380.87	1.80E+01	+/-	6.93E-01	1.26E+00	3.17E-04	+/-	1.72E-05
m 33	383.45	1.66E+01	+/-	6.32E-01	1.26E+00	3.15E-04	+/-	1.73E-05
34	393.59	3.82E+01	+/-	9.14E-01	1.26E+00	3.08E-04	+/-	1.75E-05
35	413.70	9.82E+01	+/-	1.60E+00	1.25E+00	2.94E-04	+/-	1.78E-05
36	452.20	1.20E+01	+/-	4.22E-01	1.24E+00	2.70E-04	+/-	1.78E-05
37	529.26	2.22E-01	+/-	1.36E-01	1.22E+00	2.33E-04	+/-	1.59E-05
38	619.61	1.01E+00	+/-	1.49E-01	1.20E+00	2.02E-04	+/-	1.27E-05
39	646.38	5.27E-01	+/-	1.19E-01	1.20E+00	1.94E-04	+/-	1.18E-05
40	653.28	3.41E-01	+/-	1.57E-01	1.20E+00	1.93E-04	+/-	1.16E-05
41	662.42	5.40E+00	+/-	2.74E-01	1.20E+00	1.90E-04	+/-	1.13E-05
42	689.67	3.68E-01	+/-	1.14E-01	1.19E+00	1.84E-04	+/-	1.05E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
M 43	718.09	1.87E-01 +/- 5.38E-02	1.19E+00	1.78E-04 +/- 9.69E-06
m 44	722.73	2.77E+00 +/- 2.56E-01	1.19E+00	1.77E-04 +/- 9.57E-06
45	756.95	1.46E-01 +/- 6.48E-02	1.18E+00	1.70E-04 +/- 8.81E-06
46	769.95	6.27E-01 +/- 1.08E-01	1.18E+00	1.68E-04 +/- 8.56E-06
47	1112.12	4.54E-02 +/- 2.96E-02	1.15E+00	1.26E-04 +/- 5.66E-06
48	1408.01	5.08E-02 +/- 3.37E-02	1.13E+00	1.06E-04 +/- 7.05E-06
49	2236.00	1.00E+02 +/- 1.60E+00	1.10E+00	7.00E-05 +/- 3.84E-05

Segment: 5 Detector: DET01 (# 1) Position: 5

Elapsed Live Time: 83.89 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Minimum transmission used.

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.005 +/- 0.0025
SE-75	264.65	0.000 +/- 0.0000	0.227 +/- 0.0050
SE-75	279.53	0.000 +/- 0.0000	0.239 +/- 0.0066
SE-75	400.65	0.000 +/- 0.0000	0.375 +/- 0.0103

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.07	2.97E+01 +/- 1.25E+00	4.10E+00	2.79E-07 +/- 1.84E-06
2	50.03	1.97E+01 +/- 2.51E+00	4.10E+00	1.59E-05 +/- 4.31E-05
3	60.12	1.06E+03 +/- 1.44E+01	4.10E+00	4.78E-05 +/- 8.21E-05
4	99.30	3.74E+02 +/- 6.66E+00	4.10E+00	2.77E-04 +/- 7.12E-05
5	111.64	7.92E+01 +/- 3.26E+00	4.10E+00	3.41E-04 +/- 3.83E-05
6	116.27	3.76E+01 +/- 4.27E+00	4.10E+00	3.61E-04 +/- 2.89E-05
M 7	125.89	4.62E+01 +/- 1.31E+00	4.10E+00	3.97E-04 +/- 2.36E-05
m 8	129.92	3.29E+02 +/- 5.36E+00	4.10E+00	4.09E-04 +/- 2.72E-05
9	144.73	2.70E+00 +/- 1.81E+00	3.25E+00	4.42E-04 +/- 4.47E-05
10	148.57	3.40E+01 +/- 2.11E+00	3.06E+00	4.48E-04 +/- 4.84E-05
11	161.48	6.27E+00 +/- 1.87E+00	2.66E+00	4.62E-04 +/- 5.67E-05
12	172.10	1.40E+01 +/- 2.06E+00	2.45E+00	4.67E-04 +/- 5.93E-05
13	179.89	8.42E+00 +/- 1.66E+00	2.33E+00	4.67E-04 +/- 5.93E-05
14	189.89	9.61E+00 +/- 1.36E+00	2.20E+00	4.65E-04 +/- 5.77E-05
15	196.26	1.28E+01 +/- 1.86E+00	2.14E+00	4.63E-04 +/- 5.58E-05

16	208.65	2.01E+02	+/-	3.73E+00	2.02E+00	4.56E-04	+/-	5.12E-05
17	238.53	1.94E+00	+/-	8.17E-01	1.81E+00	4.31E-04	+/-	3.78E-05
18	244.70	2.07E+00	+/-	1.55E+00	1.77E+00	4.25E-04	+/-	3.51E-05
19	256.04	1.21E+01	+/-	1.12E+00	1.71E+00	4.14E-04	+/-	3.05E-05
M 20	264.62	2.80E+00	+/-	4.75E-01	1.67E+00	4.06E-04	+/-	2.74E-05
m 21	268.16	8.98E+00	+/-	8.46E-01	1.66E+00	4.03E-04	+/-	2.62E-05
22	279.54	2.10E+00	+/-	1.22E+00	1.64E+00	3.92E-04	+/-	2.28E-05
M 23	298.03	6.00E+00	+/-	7.51E-01	1.60E+00	3.74E-04	+/-	1.90E-05
m 24	300.77	1.24E+00	+/-	3.74E-01	1.59E+00	3.72E-04	+/-	1.86E-05
25	311.90	1.00E+01	+/-	9.52E-01	1.57E+00	3.62E-04	+/-	1.74E-05
M 26	321.63	7.77E+00	+/-	7.70E-01	1.55E+00	3.53E-04	+/-	1.68E-05
m 27	324.04	1.08E+01	+/-	8.60E-01	1.54E+00	3.51E-04	+/-	1.68E-05
M 28	333.39	8.98E+01	+/-	1.96E+00	1.53E+00	3.43E-04	+/-	1.67E-05
m 29	336.34	3.49E+01	+/-	9.62E-01	1.52E+00	3.41E-04	+/-	1.67E-05
M 30	342.16	3.59E+00	+/-	3.91E-01	1.51E+00	3.36E-04	+/-	1.68E-05
m 31	345.68	7.36E+01	+/-	1.47E+00	1.51E+00	3.33E-04	+/-	1.69E-05
32	368.99	2.28E+00	+/-	1.55E+00	1.47E+00	3.16E-04	+/-	1.77E-05
33	375.68	1.43E+02	+/-	2.88E+00	1.46E+00	3.11E-04	+/-	1.79E-05
M 34	380.86	3.36E+01	+/-	1.05E+00	1.45E+00	3.07E-04	+/-	1.81E-05
m 35	383.43	3.28E+01	+/-	1.00E+00	1.44E+00	3.06E-04	+/-	1.82E-05
36	393.54	7.30E+01	+/-	1.49E+00	1.43E+00	2.99E-04	+/-	1.85E-05
37	413.70	1.90E+02	+/-	2.94E+00	1.41E+00	2.86E-04	+/-	1.90E-05
38	423.24	1.20E+01	+/-	6.91E-01	1.41E+00	2.81E-04	+/-	1.91E-05
39	446.59	1.41E+00	+/-	4.00E-01	1.40E+00	2.68E-04	+/-	1.91E-05
40	452.14	2.19E+01	+/-	7.38E-01	1.39E+00	2.65E-04	+/-	1.91E-05
41	619.72	2.01E+00	+/-	2.29E-01	1.33E+00	2.01E-04	+/-	1.37E-05
42	641.31	4.48E-01	+/-	2.50E-01	1.33E+00	1.95E-04	+/-	1.29E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)	
43	646.64	6.92E-01 +/-	2.19E-01	1.32E+00	1.94E-04 +/- 1.27E-05
44	653.31	1.06E+00 +/-	2.55E-01	1.32E+00	1.92E-04 +/- 1.24E-05
M 45	659.69	5.54E-01 +/-	1.14E-01	1.32E+00	1.91E-04 +/- 1.22E-05
m 46	663.17	8.95E+00 +/-	5.23E-01	1.32E+00	1.90E-04 +/- 1.20E-05
47	689.56	8.48E-01 +/-	1.69E-01	1.31E+00	1.83E-04 +/- 1.11E-05
48	697.37	1.63E-01 +/-	8.66E-02	1.31E+00	1.82E-04 +/- 1.08E-05
49	722.01	4.96E+00 +/-	2.85E-01	1.30E+00	1.77E-04 +/- 1.01E-05
50	738.03	1.58E-01 +/-	7.59E-02	1.30E+00	1.73E-04 +/- 9.62E-06
51	756.60	5.38E-01 +/-	1.13E-01	1.30E+00	1.70E-04 +/- 9.14E-06
52	770.04	1.06E+00 +/-	1.49E-01	1.29E+00	1.67E-04 +/- 8.82E-06
53	2236.00	1.00E+02 +/-	1.70E+00	1.17E+00	5.76E-05 +/- 3.29E-05

Segment: 6 Detector: DET01 (# 1) Position: 6

Elapsed Live Time: 84.00 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Minimum transmission used.

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.005 +/- 0.0025
SE-75	264.65	0.000 +/- 0.0000	0.210 +/- 0.0046
SE-75	279.53	0.000 +/- 0.0000	0.214 +/- 0.0057
SE-75	400.65	0.000 +/- 0.0000	0.345 +/- 0.0099

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.08	3.27E+01 +/-	1.28E+00	4.77E-07 +/- 2.99E-06
2	49.98	7.86E+00 +/-	1.86E+00	4.10E+00 2.16E-05 +/- 5.58E-05
3	60.12	1.01E+03 +/-	1.38E+01	4.10E+00 6.06E-05 +/- 9.92E-05
4	99.31	3.52E+02 +/-	6.49E+00	4.10E+00 3.06E-04 +/- 7.51E-05
5	111.65	7.10E+01 +/-	3.25E+00	4.10E+00 3.68E-04 +/- 4.01E-05
M 6	116.24	4.60E+01 +/-	4.31E+00	4.10E+00 3.88E-04 +/- 3.04E-05
m 7	125.89	4.93E+01 +/-	1.35E+00	4.10E+00 4.21E-04 +/- 2.46E-05
8	129.93	3.37E+02 +/-	5.48E+00	4.10E+00 4.33E-04 +/- 2.80E-05
9	148.57	3.88E+01 +/-	2.15E+00	3.11E+00 4.69E-04 +/- 4.84E-05
10	161.41	6.62E+00 +/-	1.91E+00	2.71E+00 4.81E-04 +/- 5.63E-05
11	165.22	3.06E+00 +/-	1.41E+00	2.63E+00 4.83E-04 +/- 5.76E-05

12	171.96	2.13E+01	+/-	2.09E+00	2.50E+00	4.85E-04	+/-	5.88E-05
13	179.82	7.08E+00	+/-	1.68E+00	2.38E+00	4.85E-04	+/-	5.88E-05
14	189.88	1.15E+01	+/-	1.38E+00	2.25E+00	4.82E-04	+/-	5.72E-05
15	196.30	1.31E+01	+/-	1.68E+00	2.18E+00	4.80E-04	+/-	5.54E-05
16	208.65	2.06E+02	+/-	3.80E+00	2.07E+00	4.72E-04	+/-	5.09E-05
17	244.70	4.01E+00	+/-	1.55E+00	1.81E+00	4.43E-04	+/-	3.54E-05
18	256.02	1.24E+01	+/-	1.49E+00	1.75E+00	4.33E-04	+/-	3.09E-05
M 19	264.64	3.11E+00	+/-	4.94E-01	1.71E+00	4.25E-04	+/-	2.79E-05
m 20	268.24	9.48E+00	+/-	8.83E-01	1.71E+00	4.21E-04	+/-	2.67E-05
M 21	298.05	7.21E+00	+/-	8.05E-01	1.65E+00	3.94E-04	+/-	1.97E-05
m 22	300.80	1.58E+00	+/-	4.11E-01	1.65E+00	3.92E-04	+/-	1.93E-05
23	311.90	1.01E+01	+/-	1.37E+00	1.62E+00	3.82E-04	+/-	1.81E-05
M 24	321.58	8.16E+00	+/-	7.01E-01	1.60E+00	3.74E-04	+/-	1.75E-05
m 25	324.09	1.13E+01	+/-	8.04E-01	1.59E+00	3.72E-04	+/-	1.74E-05
M 26	333.36	8.66E+01	+/-	1.97E+00	1.58E+00	3.65E-04	+/-	1.73E-05
m 27	336.31	2.82E+01	+/-	9.01E-01	1.57E+00	3.62E-04	+/-	1.73E-05
M 28	342.14	9.78E+00	+/-	5.19E-01	1.56E+00	3.58E-04	+/-	1.74E-05
m 29	345.66	7.86E+01	+/-	1.87E+00	1.55E+00	3.55E-04	+/-	1.74E-05
30	375.70	1.45E+02	+/-	2.93E+00	1.50E+00	3.34E-04	+/-	1.84E-05
M 31	380.87	3.48E+01	+/-	1.07E+00	1.49E+00	3.30E-04	+/-	1.86E-05
m 32	383.43	3.30E+01	+/-	1.00E+00	1.49E+00	3.28E-04	+/-	1.87E-05
33	393.54	7.48E+01	+/-	1.53E+00	1.47E+00	3.22E-04	+/-	1.90E-05
34	413.70	1.93E+02	+/-	3.00E+00	1.45E+00	3.09E-04	+/-	1.95E-05
35	423.22	1.00E+01	+/-	7.27E-01	1.45E+00	3.04E-04	+/-	1.96E-05
36	446.26	2.11E+00	+/-	4.84E-01	1.43E+00	2.91E-04	+/-	1.97E-05
37	452.11	2.14E+01	+/-	7.34E-01	1.43E+00	2.88E-04	+/-	1.97E-05
38	598.48	1.99E-01	+/-	1.32E-01	1.37E+00	2.29E-04	+/-	1.52E-05
39	619.80	2.09E+00	+/-	2.60E-01	1.36E+00	2.22E-04	+/-	1.43E-05
40	633.90	2.76E-01	+/-	1.50E-01	1.36E+00	2.18E-04	+/-	1.37E-05
41	646.56	1.00E+00	+/-	1.84E-01	1.35E+00	2.15E-04	+/-	1.32E-05
42	653.31	4.36E-01	+/-	3.02E-01	1.35E+00	2.13E-04	+/-	1.30E-05

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Corrected Peak Count Rate (Cps)		
M 43	659.67	7.65E-01 +/-	1.24E-01	1.35E+00	2.11E-04 +/-	1.27E-05
m 44	663.12	1.01E+01 +/-	5.49E-01	1.35E+00	2.10E-04 +/-	1.26E-05
45	689.53	7.84E-01 +/-	1.65E-01	1.34E+00	2.03E-04 +/-	1.16E-05
46	703.99	2.47E-01 +/-	1.33E-01	1.34E+00	2.00E-04 +/-	1.11E-05
M 47	718.12	2.98E-01 +/-	7.45E-02	1.33E+00	1.96E-04 +/-	1.06E-05
m 48	722.74	4.92E+00 +/-	3.76E-01	1.33E+00	1.95E-04 +/-	1.05E-05
49	756.91	5.76E-01 +/-	1.27E-01	1.32E+00	1.88E-04 +/-	9.53E-06
50	770.02	1.41E+00 +/-	1.63E-01	1.32E+00	1.85E-04 +/-	9.20E-06
51	1001.03	9.69E-02 +/-	5.09E-02	1.27E+00	1.45E-04 +/-	6.25E-06
52	2236.00	1.00E+02 +/-	1.71E+00	1.18E+00	4.34E-05 +/-	2.42E-05

Segment: 7

Detector: DET01 (# 1)

Position: 7

Elapsed Live Time: 95.82 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Some transmission peaks rejected.

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.000 +/- 0.0000
SE-75	264.65	0.000 +/- 0.0000	0.296 +/- 0.0057
SE-75	279.53	0.000 +/- 0.0000	0.312 +/- 0.0071
SE-75	400.65	0.000 +/- 0.0000	0.415 +/- 0.0104

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	31.99	1.77E+01 +/-	9.37E-01	2.45E+00 4.79E-09 +/- 2.75E-08
2	50.24	9.73E+00 +/-	1.58E+00	1.96E+00 3.00E-06 +/- 6.99E-06
3	60.14	6.67E+02 +/-	8.95E+00	1.86E+00 1.60E-05 +/- 2.38E-05
4	75.93	7.33E+00 +/-	1.81E+00	1.78E+00 7.71E-05 +/- 5.69E-05
5	99.33	2.11E+02 +/-	4.27E+00	1.71E+00 2.43E-04 +/- 5.52E-05
6	111.68	4.30E+01 +/-	2.36E+00	1.69E+00 3.35E-04 +/- 3.49E-05
7	116.16	3.23E+01 +/-	3.00E+00	1.68E+00 3.65E-04 +/- 2.84E-05
M 8	125.93	2.82E+01 +/-	9.46E-01	1.67E+00 4.24E-04 +/- 2.46E-05
m 9	129.96	1.95E+02 +/-	3.42E+00	1.66E+00 4.45E-04 +/- 2.77E-05
10	148.57	2.16E+01 +/-	1.37E+00	1.64E+00 5.16E-04 +/- 4.85E-05
11	172.13	8.83E+00 +/-	1.33E+00	1.61E+00 5.55E-04 +/- 6.09E-05
12	179.75	3.13E+00 +/-	1.28E+00	1.61E+00 5.58E-04 +/- 6.12E-05

13	189.94	6.07E+00	+/-	1.04E+00	1.60E+00	5.58E-04	+/-	5.97E-05
14	196.24	5.95E+00	+/-	1.43E+00	1.59E+00	5.56E-04	+/-	5.79E-05
15	208.66	1.12E+02	+/-	2.39E+00	1.58E+00	5.47E-04	+/-	5.32E-05
16	256.01	7.10E+00	+/-	9.79E-01	1.54E+00	4.90E-04	+/-	3.18E-05
M 17	264.63	2.75E+00	+/-	4.40E-01	1.53E+00	4.78E-04	+/-	2.86E-05
m 18	268.20	5.72E+00	+/-	6.63E-01	1.53E+00	4.73E-04	+/-	2.74E-05
19	298.11	3.75E+00	+/-	1.06E+00	1.48E+00	4.34E-04	+/-	2.02E-05
20	311.90	6.39E+00	+/-	7.33E-01	1.47E+00	4.17E-04	+/-	1.86E-05
M 21	321.66	4.50E+00	+/-	6.22E-01	1.45E+00	4.05E-04	+/-	1.79E-05
m 22	324.07	5.90E+00	+/-	6.64E-01	1.45E+00	4.02E-04	+/-	1.78E-05
M 23	333.41	5.05E+01	+/-	1.30E+00	1.44E+00	3.91E-04	+/-	1.76E-05
m 24	336.36	1.98E+01	+/-	6.67E-01	1.44E+00	3.88E-04	+/-	1.76E-05
M 25	342.18	2.38E+00	+/-	3.58E-01	1.43E+00	3.82E-04	+/-	1.76E-05
m 26	345.71	4.31E+01	+/-	1.26E+00	1.43E+00	3.78E-04	+/-	1.76E-05
27	368.91	2.66E+00	+/-	1.11E+00	1.40E+00	3.55E-04	+/-	1.81E-05
28	375.72	7.97E+01	+/-	1.88E+00	1.40E+00	3.48E-04	+/-	1.82E-05
M 29	380.86	2.02E+01	+/-	7.45E-01	1.39E+00	3.44E-04	+/-	1.83E-05
m 30	383.48	1.90E+01	+/-	6.93E-01	1.39E+00	3.41E-04	+/-	1.84E-05
31	393.58	4.07E+01	+/-	9.68E-01	1.38E+00	3.33E-04	+/-	1.86E-05
32	413.70	1.05E+02	+/-	1.74E+00	1.37E+00	3.17E-04	+/-	1.88E-05
33	446.49	4.93E-01	+/-	2.90E-01	1.35E+00	2.94E-04	+/-	1.87E-05
34	452.16	1.18E+01	+/-	5.00E-01	1.35E+00	2.90E-04	+/-	1.86E-05
35	619.73	1.15E+00	+/-	1.87E-01	1.30E+00	2.15E-04	+/-	1.32E-05
36	646.61	5.33E-01	+/-	1.44E-01	1.29E+00	2.07E-04	+/-	1.23E-05
37	653.40	4.73E-01	+/-	2.01E-01	1.29E+00	2.06E-04	+/-	1.20E-05
M 38	659.63	3.05E-01	+/-	8.06E-02	1.28E+00	2.04E-04	+/-	1.18E-05
m 39	663.12	5.17E+00	+/-	3.73E-01	1.28E+00	2.03E-04	+/-	1.17E-05
40	689.38	7.51E-01	+/-	1.24E-01	1.28E+00	1.96E-04	+/-	1.09E-05
41	704.11	1.95E-01	+/-	1.01E-01	1.27E+00	1.93E-04	+/-	1.05E-05
M 42	718.28	1.44E-01	+/-	5.18E-02	1.27E+00	1.90E-04	+/-	1.01E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
m 43	722.73	2.66E+00 +/- 2.55E-01	1.27E+00	1.89E-04 +/- 9.97E-06
44	769.95	9.61E-01 +/- 1.29E-01	1.26E+00	1.79E-04 +/- 8.90E-06
45	1001.03	5.07E-02 +/- 3.70E-02	1.22E+00	1.45E-04 +/- 6.33E-06
46	1112.12	5.82E-02 +/- 3.24E-02	1.21E+00	1.32E-04 +/- 5.60E-06
47	2236.00	1.00E+02 +/- 1.62E+00	1.15E+00	5.07E-05 +/- 2.69E-05

Segment: 8

Detector: DET01 (# 1)

Position: 8

Elapsed Live Time: 107.99 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.325 +/- 0.0117
SE-75	264.65	0.000 +/- 0.0000	0.502 +/- 0.0088
SE-75	279.53	0.000 +/- 0.0000	0.509 +/- 0.0098
SE-75	400.65	0.000 +/- 0.0000	0.561 +/- 0.0122

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.95	6.12E+00 +/- 4.92E-01	2.06E+00	7.53E-06 +/- 7.35E-06
2	50.24	5.53E+00 +/- 1.15E+00	1.71E+00	6.03E-05 +/- 2.95E-05
3	60.15	1.99E+02 +/- 2.94E+00	1.64E+00	1.10E-04 +/- 3.84E-05
4	99.36	6.01E+01 +/- 1.96E+00	1.53E+00	3.24E-04 +/- 3.31E-05
5	111.71	1.41E+01 +/- 1.30E+00	1.51E+00	3.75E-04 +/- 2.72E-05
6	116.17	3.84E+00 +/- 1.60E+00	1.51E+00	3.90E-04 +/- 2.56E-05
M 7	125.94	8.25E+00 +/- 4.98E-01	1.50E+00	4.19E-04 +/- 2.31E-05
m 8	129.99	5.66E+01 +/- 1.43E+00	1.49E+00	4.29E-04 +/- 2.26E-05
9	148.57	7.03E+00 +/- 8.00E-01	1.46E+00	4.62E-04 +/- 2.28E-05
10	161.43	1.44E+00 +/- 9.42E-01	1.44E+00	4.75E-04 +/- 2.41E-05
11	171.95	3.34E+00 +/- 9.26E-01	1.42E+00	4.80E-04 +/- 2.51E-05
12	189.65	1.28E+00 +/- 6.27E-01	1.39E+00	4.81E-04 +/- 2.61E-05
13	196.28	1.84E+00 +/- 8.54E-01	1.38E+00	4.79E-04 +/- 2.62E-05
14	208.67	3.11E+01 +/- 1.09E+00	1.36E+00	4.74E-04 +/- 2.60E-05
15	255.78	1.90E+00 +/- 6.54E-01	1.30E+00	4.40E-04 +/- 2.29E-05
M 16	264.48	1.36E+00 +/- 3.31E-01	1.29E+00	4.32E-04 +/- 2.21E-05
m 17	268.27	1.95E+00 +/- 4.01E-01	1.28E+00	4.28E-04 +/- 2.17E-05
18	311.90	1.43E+00 +/- 4.45E-01	1.27E+00	3.88E-04 +/- 1.78E-05
M 19	321.81	1.75E+00 +/- 3.40E-01	1.26E+00	3.79E-04 +/- 1.71E-05
m 20	324.11	1.70E+00 +/- 3.20E-01	1.26E+00	3.77E-04 +/- 1.69E-05

M 21	333.47	1.31E+01	+/-	6.05E-01	1.26E+00	3.69E-04	+/-	1.62E-05
m 22	336.38	4.96E+00	+/-	3.20E-01	1.26E+00	3.67E-04	+/-	1.60E-05
23	345.73	9.52E+00	+/-	7.67E-01	1.25E+00	3.59E-04	+/-	1.54E-05
24	368.90	7.68E-01	+/-	5.77E-01	1.25E+00	3.40E-04	+/-	1.42E-05
25	375.77	2.07E+01	+/-	8.22E-01	1.24E+00	3.34E-04	+/-	1.38E-05
M 26	380.92	5.30E+00	+/-	3.67E-01	1.24E+00	3.30E-04	+/-	1.36E-05
m 27	383.52	4.77E+00	+/-	3.26E-01	1.24E+00	3.28E-04	+/-	1.35E-05
28	393.64	1.04E+01	+/-	4.03E-01	1.24E+00	3.21E-04	+/-	1.31E-05
29	413.70	2.78E+01	+/-	6.27E-01	1.23E+00	3.06E-04	+/-	1.25E-05
30	423.23	1.72E+00	+/-	2.13E-01	1.23E+00	3.00E-04	+/-	1.22E-05
31	443.98	2.50E-01	+/-	1.55E-01	1.22E+00	2.87E-04	+/-	1.18E-05
32	452.14	3.53E+00	+/-	2.21E-01	1.22E+00	2.82E-04	+/-	1.16E-05
33	511.53	4.02E-01	+/-	1.22E-01	1.21E+00	2.50E-04	+/-	1.09E-05
34	620.01	2.97E-01	+/-	8.19E-02	1.19E+00	2.06E-04	+/-	9.86E-06
35	652.98	1.71E-01	+/-	8.51E-02	1.18E+00	1.96E-04	+/-	9.51E-06
36	662.42	1.33E+00	+/-	1.38E-01	1.18E+00	1.93E-04	+/-	9.41E-06
37	722.01	7.55E-01	+/-	9.54E-02	1.17E+00	1.78E-04	+/-	8.71E-06
38	770.57	2.04E-01	+/-	5.35E-02	1.17E+00	1.67E-04	+/-	8.11E-06
39	778.90	4.59E-02	+/-	3.38E-02	1.17E+00	1.66E-04	+/-	8.00E-06
40	867.39	2.94E-02	+/-	2.61E-02	1.16E+00	1.51E-04	+/-	6.88E-06
41	1001.03	9.18E-03	+/-	9.18E-03	1.14E+00	1.35E-04	+/-	5.36E-06
42	1112.12	4.16E-02	+/-	3.54E-02	1.13E+00	1.26E-04	+/-	4.65E-06

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	2236.00	1.00E+02 +/- 1.53E+00	1.10E+00	1.19E-04 +/- 2.92E-05

Segment: 9 Detector: DET01 (# 1) Position: 9

Elapsed Live Time: 112.68 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.340 +/- 0.0105
SE-75	264.65	0.000 +/- 0.0000	0.505 +/- 0.0086
SE-75	279.53	0.000 +/- 0.0000	0.510 +/- 0.0095
SE-75	400.65	0.000 +/- 0.0000	0.570 +/- 0.0120

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.74	1.45E+00 +/- 2.36E-01	2.02E+00	5.23E-09 +/- 3.20E-08
2	60.06	3.04E+01 +/- 8.86E-01	1.61E+00	1.63E-05 +/- 2.56E-05
3	67.71	9.50E-01 +/- 4.33E-01	1.58E+00	3.88E-05 +/- 4.33E-05
4	99.46	2.63E+00 +/- 9.16E-01	1.51E+00	2.36E-04 +/- 5.56E-05
5	129.29	1.88E+00 +/- 5.26E-01	1.47E+00	4.21E-04 +/- 2.66E-05
6	208.68	6.89E-01 +/- 3.78E-01	1.35E+00	5.11E-04 +/- 5.15E-05
7	311.90	5.77E-01 +/- 3.74E-01	1.26E+00	3.83E-04 +/- 1.78E-05
8	375.76	3.58E-01 +/- 1.82E-01	1.24E+00	3.18E-04 +/- 1.78E-05
9	393.61	2.70E-01 +/- 1.25E-01	1.23E+00	3.03E-04 +/- 1.81E-05
10	413.70	3.08E-01 +/- 1.20E-01	1.23E+00	2.88E-04 +/- 1.83E-05
11	2236.00	1.00E+02 +/- 1.51E+00	1.09E+00	6.12E-05 +/- 3.31E-05

Segment: 10 Detector: DET01 (# 1) Position: 10

Elapsed Live Time: 113.27 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.319 +/- 0.0090
SE-75	264.65	0.000 +/- 0.0000	0.471 +/- 0.0032
SE-75	279.53	0.000 +/- 0.0000	0.481 +/- 0.0050
SE-75	400.65	0.000 +/- 0.0000	0.533 +/- 0.0075

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.06	7.82E-01 +/- 2.02E-01	2.08E+00	1.67E-05 +/- 1.65E-05
2	60.05	1.20E+01 +/- 6.03E-01	1.65E+00	1.37E-04 +/- 4.88E-05
3	99.40	1.15E+00 +/- 6.55E-01	1.54E+00	3.30E-04 +/- 3.40E-05
4	511.85	1.74E-01 +/- 6.66E-02	1.23E+00	2.62E-04 +/- 1.16E-05
5	662.42	3.98E-02 +/- 3.23E-02	1.20E+00	2.06E-04 +/- 1.03E-05
6	722.01	3.26E-02 +/- 2.31E-02	1.19E+00	1.89E-04 +/- 9.55E-06
7	1112.12	8.70E-03 +/- 8.70E-03	1.15E+00	1.29E-04 +/- 4.78E-06
8	2236.00	1.00E+02 +/- 1.50E+00	1.11E+00	9.04E-05 +/- 2.29E-05

Segment: 11 Detector: DET01 (# 1) Position: 11

Elapsed Live Time: 113.55 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.195 +/- 0.0073
SE-75	264.65	0.000 +/- 0.0000	0.317 +/- 0.0025
SE-75	279.53	0.000 +/- 0.0000	0.321 +/- 0.0039
SE-75	400.65	0.000 +/- 0.0000	0.378 +/- 0.0061

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.90	1.13E+00 +/- 2.01E-01	2.67E+00	1.35E-03 +/- 8.76E-03
2	49.74	1.85E+00 +/- 4.30E-01	2.10E+00	6.04E-04 +/- 1.63E-03
3	60.17	5.54E+00 +/- 4.69E-01	1.99E+00	5.03E-04 +/- 8.46E-04
4	91.61	1.46E+00 +/- 6.20E-01	1.83E+00	4.15E-04 +/- 1.61E-04

5	264.66	1.01E+00	+/-	3.14E-01	1.50E+00	3.71E-04	+/-	2.52E-05
6	311.90	3.46E-01	+/-	2.45E-01	1.47E+00	3.53E-04	+/-	1.69E-05
7	778.90	2.61E-02	+/-	1.50E-02	1.29E+00	1.83E-04	+/-	9.12E-06
8	964.13	2.88E-02	+/-	1.96E-02	1.25E+00	1.45E-04	+/-	6.48E-06
9	1408.01	1.74E-02	+/-	1.23E-02	1.20E+00	9.35E-05	+/-	6.52E-06
10	2236.00	1.00E+02	+/-	1.50E+00	1.17E+00	5.79E-05	+/-	3.30E-05

Segment: 12

Detector: DET01 (# 1)

Position: 12

Elapsed Live Time: 113.78 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.069 +/- 0.0040
SE-75	264.65	0.000 +/- 0.0000	0.138 +/- 0.0016
SE-75	279.53	0.000 +/- 0.0000	0.143 +/- 0.0025
SE-75	400.65	0.000 +/- 0.0000	0.178 +/- 0.0040

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.77	1.02E+00	+/- 2.04E-01	3.96E+00
2	60.10	2.65E+00	+/- 3.90E-01	2.79E+00
3	67.96	5.23E-01	+/- 2.37E-01	2.68E+00
4	129.29	8.25E-01	+/- 4.13E-01	2.35E+00
5	413.70	1.56E-01	+/- 6.40E-02	1.78E+00
6	511.62	1.66E-01	+/- 6.02E-02	1.70E+00
7	722.01	4.90E-02	+/- 4.01E-02	1.57E+00
8	778.90	5.34E-02	+/- 3.26E-02	1.54E+00
9	964.13	5.44E-02	+/- 3.60E-02	1.47E+00
10	1408.01	2.09E-02	+/- 1.74E-02	1.38E+00
11	2236.00	1.00E+02	+/- 1.50E+00	1.31E+00

Segment: 13

Detector: DET01 (# 1)

Position: 13

Elapsed Live Time: 114.02 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.306 +/- 0.0084
SE-75	264.65	0.000 +/- 0.0000	0.394 +/- 0.0029
SE-75	279.53	0.000 +/- 0.0000	0.411 +/- 0.0044
SE-75	400.65	0.000 +/- 0.0000	0.450 +/- 0.0068

PEAK ANALYSIS RESULTS			
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor
1	31.77	2.47E-01 +/- 1.13E-01	2.14E+00
2	50.23	1.62E+00 +/- 3.28E-01	1.75E+00
3	60.13	6.89E-01 +/- 2.45E-01	1.68E+00
4	185.71	4.87E-01 +/- 2.57E-01	1.46E+00
5	722.01	8.65E-03 +/- 1.95E-02	1.24E+00
6	2236.00	1.00E+02 +/- 1.50E+00	1.14E+00

Segment: 14 Detector: DET01 (# 1) Position: 14

Elapsed Live Time: 114.12 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.776 +/- 0.0182
SE-75	264.65	0.000 +/- 0.0000	0.847 +/- 0.0144
SE-75	279.53	0.000 +/- 0.0000	0.850 +/- 0.0154
SE-75	400.65	0.000 +/- 0.0000	0.861 +/- 0.0173

PEAK ANALYSIS RESULTS			
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor
1	152.68	4.94E-01 +/- 2.88E-01	1.09E+00
2	300.10	1.53E-01 +/- 1.05E-01	1.06E+00
3	559.18	4.50E-02 +/- 3.68E-02	1.05E+00
4	1408.01	8.65E-03 +/- 8.65E-03	1.03E+00
5	2236.00	1.00E+02 +/- 1.50E+00	1.02E+00

Segment: 15

Detector: DET01 (# 1)

Position: 15

Elapsed Live Time: 114.18 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.797 +/- 0.0191
SE-75	264.65	0.000 +/- 0.0000	0.871 +/- 0.0147
SE-75	279.53	0.000 +/- 0.0000	0.879 +/- 0.0158
SE-75	400.65	0.000 +/- 0.0000	0.887 +/- 0.0177

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	413.70	9.93E-02 +/- 4.67E-02	1.05E+00	2.62E-04 +/- 1.65E-05
2	867.39	3.41E-02 +/- 2.33E-02	1.03E+00	1.44E-04 +/- 6.82E-06
3	1001.03	2.59E-02 +/- 1.50E-02	1.03E+00	1.29E-04 +/- 5.86E-06
4	2236.00	1.00E+02 +/- 1.49E+00	1.02E+00	3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01 (# 1)

Position: 16

Elapsed Live Time: 114.18 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.735 +/- 0.0179
SE-75	264.65	0.000 +/- 0.0000	0.821 +/- 0.0138
SE-75	279.53	0.000 +/- 0.0000	0.821 +/- 0.0148
SE-75	400.65	0.000 +/- 0.0000	0.844 +/- 0.0169

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	50.17	1.83E+00 +/-	2.65E-01	1.17E+00 3.08E-05 +/- 1.86E-05
2	60.22	3.56E-01 +/-	1.78E-01	1.16E+00 5.63E-05 +/- 2.42E-05
3	135.30	3.87E-01 +/-	2.78E-01	1.12E+00 2.34E-04 +/- 1.45E-05
4	311.90	1.98E-01 +/-	8.03E-02	1.07E+00 2.22E-04 +/- 1.24E-05
5	662.42	2.70E-02 +/-	1.92E-02	1.05E+00 1.15E-04 +/- 7.04E-06
6	722.01	3.78E-02 +/-	2.60E-02	1.05E+00 1.06E-04 +/- 6.56E-06
7	778.90	4.66E-02 +/-	2.72E-02	1.05E+00 9.86E-05 +/- 6.05E-06
8	2236.00	1.00E+02 +/-	1.49E+00	1.03E+00 6.28E-05 +/- 1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: S100-2494
Peak Locate Performed on: 12-12-07 9:53:25 AM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.73	0.1081	32.03	37.27
2	100.69	0.1614	50.01	13.43
3	120.93	0.0321	60.13	423.83
4	151.82	0.2917	75.58	5.99
5	199.31	0.0419	99.32	233.09
6	224.00	0.0606	111.67	116.42
7	233.13	0.0690	116.23	48.14
8	260.54	0.0422	129.93	226.00
9	290.11	0.1330	144.72	28.92
10	299.15	0.0859	149.24	63.12
11	323.53	0.1354	161.43	17.07
12	344.79	0.1585	172.06	18.62
13	360.27	0.1736	179.80	13.92
14	380.44	0.1549	189.89	16.77
15	393.24	0.1291	196.29	25.58
16	417.98	0.0434	208.66	221.48
17	444.80	0.2687	222.06	5.74
18	477.92	0.2797	238.62	5.67
19	488.52	0.2232	243.93	7.42
20	512.70	0.1168	256.01	29.39
21	529.84	0.2123	264.61	9.98
22	537.07	0.1295	268.21	26.21
23	596.79	0.1434	298.06	20.95
24	625.68	0.1062	312.51	34.97
25	643.35	0.2016	321.66	11.60
26	649.08	0.1574	324.08	15.73
27	667.34	0.0595	333.38	110.20
28	673.84	0.0966	336.33	50.03
29	684.61	0.1412	342.15	26.03
30	692.01	0.0595	345.68	116.03
31	738.53	0.0928	368.93	38.18
32	752.09	0.0449	375.71	194.53
33	762.06	0.0804	380.87	69.33
34	767.88	0.0883	383.45	58.89
35	787.80	0.0599	393.56	104.46
36	829.43	0.0443	414.38	177.90

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	847.16	0.0887	423.25	49.26
38	893.45	0.2063	446.39	8.90
39	904.96	0.0785	452.14	63.73
40	1023.96	0.2418	511.65	5.68
41	1240.12	0.1485	619.73	16.26
42	1293.79	0.1627	646.56	14.08
43	1307.20	0.1711	653.26	11.11
44	1319.23	0.2817	659.65	6.89
45	1326.93	0.0949	663.15	39.36
46	1379.73	0.2020	689.53	8.80
47	1409.16	0.2511	704.25	6.23
48	1446.19	0.1108	722.76	28.15
49	1514.32	0.2199	756.83	6.75
50	1540.73	0.1825	770.03	10.21
51	2668.72	0.2406	1334.03	5.30
52	4473.35	0.0271	2236.34	396.22

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: S100-2494
 Peak Analysis Performed on: 12-12-07 9:53:25 AM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Continuum Counts
1	60-	71	64.73	32.03	1.12E+04	217.49	1.31E+04
2	94-	104	100.69	50.01	6.48E+03	366.74	5.21E+04
3	114-	127	120.93	60.13	3.24E+05	714.99	6.84E+04
4	145-	158	151.82	75.58	3.38E+03	421.33	6.23E+04
5	194-	203	199.31	99.32	1.11E+05	778.13	2.20E+05
6	217-	227	224.00	111.67	2.27E+04	547.54	1.13E+05
7	227-	239	233.13	116.23	1.76E+04	694.66	1.64E+05
8	256-	267	260.54	129.93	8.53E+04	503.87	6.56E+04
9	283-	293	290.11	144.72	5.66E+02	338.21	4.72E+04
10	297-	304	299.15	149.24	9.64E+03	282.00	3.40E+04
11	316-	327	323.53	161.43	2.28E+03	354.48	4.90E+04
12	337-	351	344.79	172.06	5.15E+03	396.08	5.26E+04
13	356-	367	360.27	179.80	2.20E+03	319.21	3.97E+04
14	373-	387	380.44	189.89	4.89E+03	373.97	4.68E+04
15	389-	400	393.24	196.29	4.08E+03	307.48	3.60E+04
16	413-	425	417.98	208.66	6.06E+04	452.90	5.28E+04
17	442-	448	444.80	222.06	5.31E+02	164.98	1.41E+04
18	473-	481	477.92	238.62	4.87E+02	182.96	1.54E+04
19	484-	495	488.52	243.93	1.50E+03	226.29	1.98E+04
20	507-	520	512.70	256.01	3.58E+03	246.00	2.06E+04
M 21	525-	540	529.90	264.61	1.12E+03	95.27	1.08E+04
m 22	525-	540	537.09	268.21	2.91E+03	158.01	1.03E+04
23	591-	604	596.79	298.06	2.10E+03	213.19	1.57E+04
24	622-	631	625.68	312.51	3.21E+03	165.76	1.07E+04
M 25	638-	656	643.99	321.66	2.39E+03	132.92	1.22E+04
m 26	638-	656	648.83	324.08	3.38E+03	150.33	1.26E+04
M 27	659-	681	667.43	333.38	2.60E+04	266.25	9.26E+03
m 28	659-	681	673.34	336.33	8.75E+03	138.21	1.09E+04
M 29	681-	699	684.96	342.15	2.94E+03	85.11	6.23E+03
m 30	681-	699	692.02	345.68	2.37E+04	257.49	6.43E+03
31	730-	746	738.53	368.93	7.40E+02	257.65	1.97E+04
32	746-	759	752.09	375.71	4.33E+04	361.84	2.88E+04
M 33	759-	775	762.41	380.87	1.05E+04	158.43	6.09E+03
m 34	759-	775	767.57	383.45	9.95E+03	147.56	4.57E+03
35	780-	795	787.80	393.56	2.22E+04	191.84	4.87E+03
36	821-	837	829.43	414.38	5.73E+04	263.06	3.82E+03
37	839-	851	847.16	423.25	3.83E+03	107.87	2.98E+03

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	890-	898	893.45	446.39	2.28E+02	50.23	1.07E+03	
39	898-	912	904.96	452.14	6.74E+03	107.90	1.71E+03	
40	1016-	1031	1023.96	511.65	4.04E+02	54.73	8.63E+02	
41	1233-	1248	1240.12	619.73	6.50E+02	42.05	3.73E+02	
42	1290-	1299	1293.79	646.56	3.27E+02	31.50	2.91E+02	
43	1302-	1315	1307.20	653.26	3.58E+02	41.36	4.61E+02	
M 44	1315-	1335	1319.98	659.65	1.91E+02	19.58	3.06E+02	
m 45	1315-	1335	1326.97	663.15	2.88E+03	84.12	2.52E+02	
46	1371-	1386	1379.73	689.53	2.42E+02	31.32	2.42E+02	
47	1400-	1417	1409.16	704.25	5.43E+01	31.96	2.97E+02	
48	1440-	1454	1446.19	722.76	1.42E+03	47.71	3.01E+02	
49	1508-	1522	1514.32	756.83	1.38E+02	22.28	1.24E+02	
50	1532-	1549	1540.73	770.03	4.11E+02	30.08	1.51E+02	
51	2659-	2677	2668.72	1334.03	8.44E+01	15.66	4.76E+01	
52	4463-	4483	4473.35	2236.34	1.74E+05	418.08	3.39E+02	

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: S100-2494
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	0.992	2236.00*	100.00	7.332E+02	2.002E+02
Np-237	0.741	300.10	6.63		
		311.90*	38.60	7.523E+00	3.951E-01
Pu-239	0.967	413.70*	0.00	4.295E+06	8.532E+04
Pu-239A	0.971	129.29*	0.01	1.245E+06	3.501E+04
Am-241	0.962	662.42*	0.00	1.192E+06	3.722E+04
Am-241D	0.961	722.01*	0.00	1.291E+06	4.560E+04
Pu-241	0.968	148.57*	0.00	4.234E+06	1.589E+05

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-12-07 9:53:25 AM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	32.03	1.0382E+02	1.96
2	50.01	5.9936E+01	5.67
3	60.13	2.9976E+03	0.34
4	75.58	3.1242E+01	12.48
5	99.32	1.0230E+03	0.75
6	111.67	2.0966E+02	2.43
7	116.23	1.6330E+02	3.94
9	144.72	5.2341E+00	59.79
11	161.43	2.1127E+01	15.53
12	172.06	4.7671E+01	7.69
13	179.80	2.0342E+01	14.52
14	189.89	4.5287E+01	7.65
15	196.29	3.7731E+01	7.54
16	208.66	5.6058E+02	0.79
17	222.06	4.9130E+00	31.07
18	238.62	4.5093E+00	37.54
19	243.93	1.3850E+01	15.12
20	256.01	3.3085E+01	6.88
M 21	264.61	1.0364E+01	8.51
m 22	268.21	2.6944E+01	5.43
23	298.06	1.9472E+01	10.13
M 25	321.66	2.2139E+01	5.56
m 26	324.08	3.1317E+01	4.45
M 27	333.38	2.4071E+02	1.06
m 28	336.33	8.0979E+01	1.60
M 29	342.15	2.7180E+01	2.91
m 30	345.68	2.1944E+02	1.12
31	368.93	6.8510E+00	34.80
32	375.71	4.0056E+02	0.88
M 33	380.87	9.7282E+01	1.53
m 34	383.45	9.2096E+01	1.51
35	393.56	2.0549E+02	0.90
37	423.25	3.5426E+01	2.83
38	446.39	2.1060E+00	22.07
39	452.14	6.2329E+01	1.62
40	511.65	3.7355E+00	13.56
41	619.73	6.0180E+00	6.47
42	646.56	3.0299E+00	9.62
43	653.26	3.3171E+00	11.54
M 44	659.65	1.7714E+00	10.23
46	689.53	2.2360E+00	12.96
47	704.25	5.0254E-01	58.84
49	756.83	1.2767E+00	16.15
50	770.03	3.8035E+00	7.32
51	1334.03	7.8134E-01	18.55

M = First peak in a multiplet region

m = Other peak in a multiplet region

Report for: S100-2494

12-12-07 9:54:08 AM

Page 26

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	8.14E+02 +/-	1.20E+02	3.67E-02 +/-	5.40E-03
SE-75	< 5.64E-01 +/-	3.80E-02	< 2.54E-05 +/-	1.71E-06
EU-152x	< 2.45E-01 +/-	1.66E-02	< 1.10E-05 +/-	7.48E-07
U-233	2.16E+03 +/-	1.56E+03	9.72E-02 +/-	7.01E-02
U-235	6.72E-02 +/-	3.65E-02	3.03E-06 +/-	1.64E-06
Np-237	9.54E+00 +/-	5.70E-01	4.30E-04 +/-	2.57E-05
Pu-238	3.42E+03 +/-	2.03E+03	1.54E-01 +/-	9.14E-02
U-238	7.41E+00 +/-	1.99E+00	3.34E-04 +/-	8.96E-05
Pu-239	5.26E+06 +/-	1.78E+05	2.37E+02 +/-	8.04E+00
Pu-239A	3.47E+06 +/-	1.39E+05	1.56E+02 +/-	6.27E+00
Am-241	1.40E+06 +/-	5.81E+04	6.30E+01 +/-	2.62E+00
Am-241D	1.59E+06 +/-	7.22E+04	7.18E+01 +/-	3.25E+00
Pu-241	9.34E+06 +/-	6.24E+05	4.21E+02 +/-	2.81E+01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

U-233	2.25E-01	+/-	1.62E-01
U-235	3.11E-02	+/-	1.69E-02
Np-237	1.35E-02	+/-	8.10E-04
Pu-238	2.00E-04	+/-	1.19E-04
U-238	2.21E+01	+/-	5.93E+00
Pu-239	8.47E+01	+/-	2.87E+00
Pu-239A	5.59E+01	+/-	2.24E+00
Am-241	4.09E-01	+/-	1.70E-02
Pu-241	9.03E-02	+/-	6.03E-03

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	7.33E+02	+/-	2.00E+02	3.30E-02
SE-75	<	1.21E+00	+/-	1.35E-02
EU-152x	<	6.11E-01	+/-	1.28E-02
U-233	<	7.02E+04	+/-	1.77E+03
U-235	<	1.67E+00	+/-	4.32E-02
Np-237	7.52E+00	+/-	3.95E-01	3.39E-04
Pu-238	<	1.23E+05	+/-	2.89E+03
U-238	<	1.50E+01	+/-	2.47E-01
Pu-239	4.30E+06	+/-	8.53E+04	1.93E+02
Pu-239A	1.24E+06	+/-	3.50E+04	5.61E+01
Am-241	1.19E+06	+/-	3.72E+04	5.37E+01
Am-241D	1.29E+06	+/-	4.56E+04	5.82E+01
Pu-241	4.23E+06	+/-	1.59E+05	1.91E+02

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)
Np-237	1.07E-02
Pu-239	6.92E+01
Pu-239A	2.00E+01
Am-241	3.48E-01
Pu-241	4.09E-02

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.911 +/- 7.0353
Matrix Longitudinal Ratio: 0.677 +/- 0.0238

Source Vertical Ratio: 0.863 +/- 0.4399
Matrix Vertical Ratio: 0.861 +/- 0.0165

NUDS could not find the transmission peak in one radial segment.

□

Radioassay Data Sheet

Procedure ID & Rev: WCP-55 03/07/2002

Tue Dec 18 07:32:02 2007
Software Version: GWAS v2.3bGEN

Drum ID	:	S100-2514	Gross Weight (kg)	:	54.0
Sequence Number	:	2514	Fill Height (%)	:	100.0
Assay Date	:	12/17/07 14:58:20	Density (g/cc)	:	0.11
Batch Number	:		Net Weight (kg)	:	22.20
Site ID	:		Waste Matrix Code	:	
			TRUCON	:	

Errors at 1.00 Sigma					
TRU Alpha Activity Concentration:	4.18e-04	+/-	5.09e-05	Ci/g	
Total Pu-239 Equiv Activity:	9.66e+00	+/-	1.13e+00	Ci	
Total Pu-239 Fissile Gram Equiv:	1.02e+02	+/-	1.74e+01	g	
Decay Heat:	2.96e-01	+/-	3.57e-02	W	
Total Pu Mass:	1.08e+02	+/-	1.74e+01	g	
TMU:	17.08%				
Waste Classification:	TRU				

Isotopics Data

Measured Isotope	MGA Report Weight %	MGA Report % Err (1.00 Sigma)
------------------	---------------------	-------------------------------

Pu-238	8.32e-03	7.47e+00
Pu-239	9.42e+01	5.31e-02
Pu-240	5.57e+00	8.91e-01
Pu-241	1.83e-01	7.03e-01
Pu-242	3.06e-02	1.00e+01
Am-241	4.92e-01	4.92e-01
Am-243	0.00e+00	0.00e+00
Np-237	0.00e+00	0.00e+00
U-235	0.00e+00	0.00e+00

Activity Errors

Isotope	1.00 Sigma Mass (g)	Alpha Activity/ Error/Isotope Mass (g)	1.00 Sigma Isotope (Ci)	1.00 Sigma Error/Isotope (Ci)	MDA (g)
Pu-238	9.00e-03	1.68e-03	1.54e-01	2.87e-02	3.06e-03
Pu-239	1.02e+02	1.74e+01	6.32e+00	1.08e+00	3.08e-01
Pu-240	6.02e+00	1.03e+00	1.37e+00	2.34e-01	0.00e+00
Pu-241	1.98e-01	3.38e-02	2.04e+01	3.49e+00	6.31e-03
Pu-242	3.31e-02	6.56e-03	1.30e-04	2.58e-05	0.00e+00
Am-241	4.19e-01	7.04e-02	1.44e+00	2.41e-01	5.98e-03
Am-243	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
Np-237	1.30e-02	2.24e-03	9.15e-06	1.58e-06	1.30e-03
*U-235	<LLD	0.00e+00	0.00e+00	0.00e+00	3.32e-01
*U-238	<LLD	0.00e+00	0.00e+00	0.00e+00	1.74e+01
*U-233	<LLD	0.00e+00	0.00e+00	0.00e+00	3.22e+00
CS-137	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
U-234	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
SR-90	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

* = Activity/Mass below detectable limit.

Operator Signature

Date

Reviewer Signature

Date

Software Version: GWAS v2.3bGEN
 Counter Number: SGS
 Data Review for Container: S100-2514
 Item Description Code: \Count Type: DEBRIS
 Sequence Number: 2514
 Assayed on: 12/17/07 14:58:20
 Report Generated: 12/18/07 07:31:46
 AITR Version 1.4

Section 1 MGA Analysis Review Using MGA Isotopics

REVIEW Pu-240 Wt Pct +2 Sigma error <5.66> less than <5.87> Review MGA Results
 Pu-240 Wt Pct error <0.89> is within limits
 Pu-238 Wt Pct error <7.47> is within limits
 REVIEW QFIT <1.68> > <1.20> Review MGA Results

Section 2 - CONTAINER DENSITY REVIEW

Container density <0.107> g/cc is within UPPER and LOWER limits

Section 3 - SELF-ABSORPTION REVIEW

Pu-239/Pu-239a ratio <1.52e+00> is within limits

Section 4 - PULSER REVIEW

DEAD TIME percentage <1.54> is acceptable in Segment 1
 Pulser value <0.99> is within range in Segment 1
 DEAD TIME percentage <1.90> is acceptable in Segment 2
 Pulser value <0.99> is within range in Segment 2
 DEAD TIME percentage <4.30> is acceptable in Segment 3
 Pulser value <0.99> is within range in Segment 3
 DEAD TIME percentage <14.65> is acceptable in Segment 4
 Pulser value <0.99> is within range in Segment 4
 DEAD TIME percentage <27.08> is acceptable in Segment 5
 Pulser value <0.98> out of range in Segment 5
 REVIEW DEAD TIME percentage <26.94> is acceptable in Segment 6
 Pulser value <0.97> out of range in Segment 6
 REVIEW DEAD TIME percentage <16.70> is acceptable in Segment 7
 Pulser value <1.01> is within range in Segment 7
 DEAD TIME percentage <6.09> is acceptable in Segment 8
 Pulser value <1.00> is within range in Segment 8
 DEAD TIME percentage <2.03> is acceptable in Segment 9
 Pulser value <0.99> is within range in Segment 9
 DEAD TIME percentage <1.51> is acceptable in Segment 10
 Pulser value <0.99> is within range in Segment 10
 DEAD TIME percentage <1.29> is acceptable in Segment 11
 Pulser value <0.99> is within range in Segment 11
 DEAD TIME percentage <1.07> is acceptable in Segment 12
 Pulser value <0.99> is within range in Segment 12
 DEAD TIME percentage <0.88> is acceptable in Segment 13
 Pulser value <0.99> is within range in Segment 13
 DEAD TIME percentage <0.77> is acceptable in Segment 14
 Pulser value <0.99> is within range in Segment 14
 DEAD TIME percentage <0.71> is acceptable in Segment 15
 Pulser value <0.99> is within range in Segment 15
 DEAD TIME percentage <0.73> is acceptable in Segment 16
 Pulser value <0.99> is within range in Segment 16

Section 5 - TRANSMISSION REVIEW

Transmission results are acceptable in Segment 1
 Transmission results are acceptable in Segment 2
 Transmission results are acceptable in Segment 3
 Transmission results are acceptable in Segment 4
 Transmission results are acceptable in Segment 5
 Transmission results are acceptable in Segment 6
 REVIEW Low Transmission Line <136.000000> <<0.001> found in Segment 7
 Transmission results are acceptable in Segment 8

Transmission results are acceptable in Segment 9
Transmission results are acceptable in Segment 10
Transmission results are acceptable in Segment 11
Transmission results are acceptable in Segment 12
Transmission results are acceptable in Segment 13
Transmission results are acceptable in Segment 14
Transmission results are acceptable in Segment 15
Transmission results are acceptable in Segment 16

Section 6 - REDUCED CHI SQUARED FIT REVIEW

REVIEW Reduced chi squared fit value <4.31e+00> exceeds limit <3.00> for energy peak <129.97> in Segment 4
REVIEW Reduced chi squared fit value <1.99e+01> exceeds limit <3.00> for energy peak <129.93> in Segment 5
REVIEW Reduced chi squared fit value <1.47e+01> exceeds limit <3.00> for energy peak <129.93> in Segment 6
REVIEW Reduced chi squared fit value <4.86e+00> exceeds limit <3.00> for energy peak <129.96> in Segment 7
REVIEW Reduced chi squared fit value <3.22e+00> exceeds limit <3.00> for energy peak <130.00> in Segment 8

Section 7 - FGE MASS REVIEW

REVIEW FGE Mass <119.88> > <110.00>

Section 8 - PERCENT FULL REVIEW

Percent Full <100.0> is above lower limit <30.0>

Section 9 - IDC COUNT TYPE REVIEW

REVIEW IDC is not available

Section 10 - AM-241 & NP-237 INTERFERENCE REVIEW

Am-241 ratio <242.89> is above lower limit <200.00>
Np-237 ratio <7853.23> is above lower limit <125.00>

Section 11 - PU-239 CALIBRATION RANGE REVIEW

Pu-239 <101.88> is within limits

Section 12 - CS-137 INTERFERENCE REVIEW

Am-241D > Am-241A: Calculation not performed

Independent Reviewer: _____ Date: _____

INDEPENDENT TECHNICAL REVIEW COMMENT SHEET

Counter Number: SGS
Data Review for Container: S100-2514
Item Description Code:
Sequence Number: 2514
Assayed on: 12/17/07 14:58:20
AITR Version 1.4

Comments	Disposition
SECTION 1 - MGA Pu-240 Wt Pct +2 Sigma error is less than lower limit. QFIT is greater than upper limit.	
SECTION 4 - PULSER Pulser value out of range in Segment 5 Pulser value out of range in Segment 6	
SECTION 5 - TRANSMISSION Low Transmission Line 136.0 less than 0.001 found in Segment 7	
SECTION 6 - REDUCED CHI SQUARED FIT Chi square failure for 130.0 Kev in Segment 4 Chi square failure for 129.9 Kev in Segment 5 Chi square failure for 129.9 Kev in Segment 6 Chi square failure for 130.0 Kev in Segment 7 Chi square failure for 130.0 Kev in Segment 8	
SECTION 7 - FGE MASS FGE Mass is greater than upper limit.	
SECTION 9 - IDC COUNT TYPE IDC is not available.	

Technical Reviewer: _____ Date: _____

***** M G A R E P O R T *****

Report generated on: 12-17-07 3:55:37 PM

MGA version: MGA V9.5 CI

Spectrum ID: 11202514.CNF Sens : 30.0% LT: 47.2 Mins DT: 16.62
Measurement date: 12-17-07 Declared date: 12-17-07

Sample ID: S100-2514 Detector: Total counts: 1.318E+07

Pu g/cm² = 0.8267 Cd g/cm² = 1.7877 FWHM at 122 keV = 631 eV
QFIT = 1.68 FWHM at 208 keV = 807 eV
NQFIT = 1.03

Isotope	Relative to Pu-239	%*		Relative to Pu-241	%*		Meas. date	Isotope analysis at		
		Err	%		Err	%		Decl. date	% weight	% Err
Pu-238	0.000088	7.5	7.5	0.0456	7.4	0.00832	7.47	0.00832	7.47	
Pu-239	1.000000	0.0	0.4	515.7525	0.7	94.21273	0.05	94.21273	0.05	
Pu-240	0.059075	0.9	0.9	30.4682	1.1	5.56563	0.89	5.56563	0.89	
Pu-241	0.001939	0.7	0.6	1.0000	0.0	0.18267	0.70	0.18267	0.70	
Pu-242	(New alg.)			0.1678 (10)		0.03065 (10)		0.03065 (10)		
Am-241	0.005222	0.5	0.4	2.6934	0.7	0.49200	0.49	0.49200	0.49	

Pu-240 effective (meas. date) = 5.638 +/- 0.96%
Am-241 separated about 27.019 +/- 0.159 years ago
Am/Pu-241 weight ratio = 2.69337 +/- 0.71%

Messages :

Lead x-rays detected.
17 MGA parameter(s) defaulted, starting from parameter 8.

Notes : * = Error in ratio
1.000 sigma errors

Report for: S100-2514 12-17-07 3:55:52 PM Page 1

Gamma Waste Assay

Sample Information

File Name:	C:\WAS\DATA\2600\11102514.S11		
Sample ID:	S100-2514	Count Sequence Number:	2514
Assay Start:	12-17-07 2:58:21 PM		
Description 1:			
Description 2:			
Location:			
Comment:			
Waste Type:			
Weight:	Gross: 54000.0 g	Net: 22200.0 g	
Density:	0.107 g /ml		
Container Type:	55 Gal Galv		
Container:	Volume: 208000. ml	Full:	100.0 %

System Configuration

Counter ID Number:	SGS	
Arrangement Description:	SGS	
Segments:	Number: 16	Offset: 0
Scanning Platform:	Start: 934 mm	Delta: -51 mm
Count Type:	Daily 100g Drum Check	
Collimator/Geometry Setting:	0	
Transmission Mode:	Two pass	
Transmission Source:	0	

Errors quoted at 1.000 sigma

Reference Source Date: Reference Source Rate: 1.00E+02 cps

Geometric Correction Factor(SWCONTGCF): 0.760

Date of efficiency calibration approval: 8-27-2003 2:05:34 PM

Mu Factors response file: Lucite

Transmission Calib. Time: 12-11-2007 9:07:38 AM 22209

Reviewed by: _____ Date: _____

Segment Results

Segment: 1 Detector: DET01 (# 1) Position: 1

Elapsed Live Time: 113.23 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.343 +/- 0.0100
SE-75	264.65	0.000 +/- 0.0000	0.443 +/- 0.0076
SE-75	279.53	0.000 +/- 0.0000	0.446 +/- 0.0085
SE-75	400.65	0.000 +/- 0.0000	0.497 +/- 0.0107

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.89	1.61E+00 +/- 2.29E-01	2.00E+00	4.20E-10 +/- 3.00E-09
2	49.17	3.68E+00 +/- 5.19E-01	1.68E+00	6.77E-07 +/- 2.05E-06
3	59.95	7.32E+00 +/- 5.83E-01	1.60E+00	6.13E-06 +/- 1.14E-05
4	67.86	1.06E+00 +/- 4.72E-01	1.57E+00	1.79E-05 +/- 2.35E-05
5	121.11	1.22E+00 +/- 5.21E-01	1.48E+00	2.66E-04 +/- 1.81E-05
6	443.98	7.86E-02 +/- 5.03E-02	1.28E+00	1.88E-04 +/- 1.44E-05
7	662.42	4.70E-02 +/- 3.07E-02	1.22E+00	1.27E-04 +/- 8.85E-06
8	867.39	1.75E-02 +/- 1.24E-02	1.19E+00	1.02E-04 +/- 5.64E-06
9	1085.91	8.74E-03 +/- 2.16E-02	1.17E+00	8.64E-05 +/- 4.52E-06
10	1408.01	8.74E-03 +/- 8.74E-03	1.14E+00	6.92E-05 +/- 5.19E-06
11	2236.00	1.00E+02 +/- 1.50E+00	1.12E+00	3.40E-05 +/- 2.15E-05

Segment: 2 Detector: DET01 (# 1) Position: 2

Elapsed Live Time: 112.81 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.385 +/- 0.0119
SE-75	264.65	0.000 +/- 0.0000	0.516 +/- 0.0088
SE-75	279.53	0.000 +/- 0.0000	0.528 +/- 0.0099
SE-75	400.65	0.000 +/- 0.0000	0.574 +/- 0.0121

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.26	1.47E+00 +/- 2.14E-01	1.86E+00	1.93E-05 +/- 1.18E-04
2	48.91	3.34E+00 +/- 5.76E-01	1.60E+00	7.84E-05 +/- 2.11E-04
3	60.06	1.54E+01 +/- 7.15E-01	1.53E+00	1.32E-04 +/- 2.14E-04
4	67.73	9.13E-01 +/- 4.65E-01	1.50E+00	1.71E-04 +/- 1.97E-04
5	99.63	3.43E+00 +/- 1.03E+00	1.44E+00	3.10E-04 +/- 7.42E-05
6	129.29	1.16E+00 +/- 5.07E-01	1.41E+00	3.88E-04 +/- 2.47E-05
7	244.70	5.54E-01 +/- 4.06E-01	1.29E+00	4.07E-04 +/- 3.17E-05
8	722.01	3.95E-02 +/- 2.80E-02	1.17E+00	1.71E-04 +/- 9.64E-06
9	2236.00	1.00E+02 +/- 1.51E+00	1.09E+00	9.73E-05 +/- 5.41E-05

Segment: 3

Detector: DET01 (# 1)

Position: 3

Elapsed Live Time: 110.05 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.345 +/- 0.0118
SE-75	264.65	0.000 +/- 0.0000	0.461 +/- 0.0081
SE-75	279.53	0.000 +/- 0.0000	0.479 +/- 0.0093
SE-75	400.65	0.000 +/- 0.0000	0.518 +/- 0.0113

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency
1	32.10	5.54E+00 +/-	4.45E-01	1.99E+00 3.49E-06 +/- 3.33E-06
2	49.26	2.93E+00 +/-	8.92E-01	1.67E+00 3.63E-05 +/- 1.81E-05
3	60.15	7.46E+01 +/-	1.50E+00	1.60E+00 8.06E-05 +/- 2.79E-05
4	67.87	1.80E+00 +/-	8.17E-01	1.57E+00 1.20E-04 +/- 3.24E-05
5	99.40	2.95E+01 +/-	1.47E+00	1.50E+00 2.97E-04 +/- 3.03E-05
6	111.71	6.93E+00 +/-	1.09E+00	1.48E+00 3.54E-04 +/- 2.60E-05
M 7	126.03	5.27E+00 +/-	4.17E-01	1.47E+00 4.08E-04 +/- 2.26E-05
m 8	129.98	2.67E+01 +/-	9.73E-01	1.46E+00 4.20E-04 +/- 2.22E-05
9	144.68	1.33E+00 +/-	7.27E-01	1.45E+00 4.56E-04 +/- 2.22E-05
10	148.57	2.38E+00 +/-	6.91E-01	1.44E+00 4.63E-04 +/- 2.25E-05
11	196.17	1.22E+00 +/-	6.81E-01	1.39E+00 4.95E-04 +/- 2.60E-05
12	208.68	1.61E+01 +/-	8.41E-01	1.37E+00 4.92E-04 +/- 2.59E-05
M 13	255.93	1.06E+00 +/-	3.11E-01	1.33E+00 4.58E-04 +/- 2.28E-05
m 14	259.36	5.97E-01 +/-	2.20E-01	1.33E+00 4.55E-04 +/- 2.25E-05
15	268.41	7.48E-01 +/-	4.29E-01	1.32E+00 4.47E-04 +/- 2.17E-05
16	311.90	7.76E-01 +/-	4.00E-01	1.30E+00 4.04E-04 +/- 1.79E-05
M 17	333.42	7.08E+00 +/-	4.82E-01	1.29E+00 3.84E-04 +/- 1.63E-05
m 18	336.33	2.41E+00 +/-	2.54E-01	1.29E+00 3.81E-04 +/- 1.61E-05
19	345.69	5.73E+00 +/-	4.29E-01	1.29E+00 3.73E-04 +/- 1.56E-05
20	375.71	1.19E+01 +/-	6.13E-01	1.28E+00 3.46E-04 +/- 1.41E-05
M 21	380.88	2.80E+00 +/-	2.72E-01	1.28E+00 3.42E-04 +/- 1.38E-05
m 22	383.43	2.93E+00 +/-	2.69E-01	1.27E+00 3.40E-04 +/- 1.37E-05
23	393.57	5.67E+00 +/-	3.11E-01	1.27E+00 3.31E-04 +/- 1.34E-05
24	413.70	1.61E+01 +/-	4.48E-01	1.27E+00 3.16E-04 +/- 1.28E-05
25	423.26	1.09E+00 +/-	1.83E-01	1.26E+00 3.09E-04 +/- 1.26E-05
26	452.18	1.50E+00 +/-	1.61E-01	1.26E+00 2.89E-04 +/- 1.20E-05
27	619.52	1.58E-01 +/-	6.99E-02	1.22E+00 2.09E-04 +/- 1.01E-05
28	662.42	7.86E-01 +/-	1.07E-01	1.21E+00 1.95E-04 +/- 9.62E-06
29	722.01	4.25E-01 +/-	7.15E-02	1.20E+00 1.79E-04 +/- 8.87E-06
30	964.13	4.29E-02 +/-	3.31E-02	1.17E+00 1.39E-04 +/- 5.75E-06
31	1001.03	3.39E-02 +/-	2.42E-02	1.16E+00 1.35E-04 +/- 5.37E-06
32	2236.00	1.00E+02 +/-	1.52E+00	1.11E+00 1.32E-04 +/- 3.24E-05

Segment: 4

Detector: DET01 (# 1)

Position: 4

Elapsed Live Time: 98.15 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.325 +/- 0.0137
SE-75	264.65	0.000 +/- 0.0000	0.488 +/- 0.0090
SE-75	279.53	0.000 +/- 0.0000	0.493 +/- 0.0102
SE-75	400.65	0.000 +/- 0.0000	0.535 +/- 0.0125

PEAK ANALYSIS RESULTS			
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.02	1.03E+01 +/- 6.67E-01	2.06E+00	1.17E-07 +/- 7.16E-07
2	49.97	5.31E+00 +/- 1.46E+00	1.71E+00	1.04E-05 +/- 2.63E-05
3	60.16	4.47E+02 +/- 6.12E+00	1.64E+00	3.62E-05 +/- 5.76E-05
4	99.37	1.77E+02 +/- 3.71E+00	1.53E+00	2.64E-04 +/- 6.34E-05
5	111.67	4.07E+01 +/- 2.15E+00	1.51E+00	3.35E-04 +/- 3.63E-05
6	116.30	1.49E+01 +/- 2.87E+00	1.51E+00	3.58E-04 +/- 2.83E-05
M 7	125.92	2.49E+01 +/- 8.54E-01	1.50E+00	3.99E-04 +/- 2.37E-05
m 8	129.97	1.63E+02 +/- 2.94E+00	1.49E+00	4.14E-04 +/- 2.68E-05
9	144.70	2.37E+00 +/- 1.26E+00	1.47E+00	4.55E-04 +/- 4.30E-05
10	148.57	1.97E+01 +/- 1.26E+00	1.46E+00	4.63E-04 +/- 4.66E-05
11	161.47	4.89E+00 +/- 1.33E+00	1.44E+00	4.81E-04 +/- 5.49E-05
12	171.96	7.37E+00 +/- 1.18E+00	1.42E+00	4.88E-04 +/- 5.77E-05
13	179.91	4.40E+00 +/- 1.20E+00	1.41E+00	4.90E-04 +/- 5.79E-05
14	189.87	2.91E+00 +/- 1.28E+00	1.39E+00	4.89E-04 +/- 5.65E-05
15	196.26	8.08E+00 +/- 1.33E+00	1.38E+00	4.87E-04 +/- 5.48E-05
16	204.18	3.17E+01 +/- 1.20E+00	1.37E+00	4.83E-04 +/- 5.22E-05
17	208.66	7.99E+01 +/- 2.22E+00	1.37E+00	4.80E-04 +/- 5.05E-05
18	244.70	4.40E+00 +/- 9.58E-01	1.32E+00	4.48E-04 +/- 3.50E-05
19	256.03	6.95E+00 +/- 1.04E+00	1.31E+00	4.36E-04 +/- 3.06E-05
M 20	264.62	2.37E+00 +/- 3.69E-01	1.30E+00	4.27E-04 +/- 2.75E-05
m 21	268.23	5.51E+00 +/- 6.08E-01	1.30E+00	4.23E-04 +/- 2.63E-05
22	298.09	4.41E+00 +/- 7.57E-01	1.29E+00	3.91E-04 +/- 1.92E-05
23	311.90	5.43E+00 +/- 6.81E-01	1.28E+00	3.77E-04 +/- 1.75E-05
M 24	321.66	4.37E+00 +/- 5.26E-01	1.28E+00	3.68E-04 +/- 1.69E-05
m 25	324.19	5.37E+00 +/- 5.64E-01	1.28E+00	3.66E-04 +/- 1.67E-05
M 26	333.40	4.58E+01 +/- 1.20E+00	1.28E+00	3.57E-04 +/- 1.65E-05
m 27	336.38	1.79E+01 +/- 6.15E-01	1.27E+00	3.54E-04 +/- 1.65E-05
28	345.66	3.48E+01 +/- 8.82E-01	1.27E+00	3.46E-04 +/- 1.65E-05
29	375.69	7.56E+01 +/- 1.75E+00	1.26E+00	3.21E-04 +/- 1.71E-05
M 30	380.84	1.69E+01 +/- 6.66E-01	1.26E+00	3.17E-04 +/- 1.72E-05
m 31	383.45	1.67E+01 +/- 6.37E-01	1.26E+00	3.15E-04 +/- 1.73E-05
32	393.54	3.63E+01 +/- 8.92E-01	1.26E+00	3.08E-04 +/- 1.75E-05
33	413.70	9.72E+01 +/- 1.61E+00	1.25E+00	2.94E-04 +/- 1.78E-05
34	423.24	5.74E+00 +/- 3.76E-01	1.25E+00	2.87E-04 +/- 1.79E-05
35	446.65	4.78E-01 +/- 3.32E-01	1.24E+00	2.73E-04 +/- 1.78E-05
36	452.10	1.09E+01 +/- 4.46E-01	1.24E+00	2.70E-04 +/- 1.78E-05
37	598.09	2.88E-01 +/- 1.02E-01	1.21E+00	2.08E-04 +/- 1.35E-05
38	619.77	1.02E+00 +/- 1.52E-01	1.20E+00	2.02E-04 +/- 1.27E-05
39	640.83	3.08E-01 +/- 1.44E-01	1.20E+00	1.96E-04 +/- 1.20E-05

Canberra SGS Assay Report 12-17-07 3:55:57 PM Page 6
Instrument ID: SGS Can ID: S100-2514 Count Sequence #: 2514

40	646.55	3.28E-01	+/-	1.56E-01	1.20E+00	1.94E-04	+/-	1.18E-05
41	653.41	5.72E-01	+/-	1.73E-01	1.20E+00	1.93E-04	+/-	1.16E-05
M 42	659.55	3.22E-01	+/-	7.95E-02	1.20E+00	1.91E-04	+/-	1.14E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)		
m 43	663.11	5.00E+00 +/-	3.64E-01	1.20E+00	1.90E-04 +/-	1.13E-05
44	689.53	5.05E-01 +/-	1.03E-01	1.19E+00	1.84E-04 +/-	1.05E-05
45	704.57	1.24E-01 +/-	6.64E-02	1.19E+00	1.81E-04 +/-	1.00E-05
M 46	718.15	1.46E-01 +/-	4.68E-02	1.19E+00	1.78E-04 +/-	9.69E-06
m 47	722.63	2.37E+00 +/-	2.30E-01	1.19E+00	1.77E-04 +/-	9.58E-06
48	756.92	2.05E-01 +/-	5.95E-02	1.18E+00	1.70E-04 +/-	8.81E-06
49	770.19	6.87E-01 +/-	1.14E-01	1.18E+00	1.68E-04 +/-	8.56E-06
50	1085.91	5.02E-02 +/-	3.60E-02	1.15E+00	1.29E-04 +/-	5.82E-06
51	2236.00	1.00E+02 +/-	1.59E+00	1.10E+00	7.00E-05 +/-	3.84E-05

Segment: 5

Detector: DET01

(# 1)

Position: 5

Elapsed Live Time: 83.86 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Minimum transmission used.

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.005 +/- 0.0025
SE-75	264.65	0.000 +/- 0.0000	0.223 +/- 0.0048
SE-75	279.53	0.000 +/- 0.0000	0.237 +/- 0.0063
SE-75	400.65	0.000 +/- 0.0000	0.390 +/- 0.0104

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.11	3.05E+01 +/-	1.26E+00	2.83E-07 +/- 1.86E-06
2	50.02	1.50E+01 +/-	2.03E+00	4.10E+00 1.59E-05 +/- 4.31E-05
3	60.13	1.07E+03 +/-	1.46E+01	4.10E+00 4.78E-05 +/- 8.22E-05
4	99.32	3.61E+02 +/-	6.56E+00	4.10E+00 2.77E-04 +/- 7.11E-05
5	111.65	7.64E+01 +/-	3.26E+00	4.10E+00 3.41E-04 +/- 3.83E-05
6	116.28	3.67E+01 +/-	4.29E+00	4.10E+00 3.61E-04 +/- 2.89E-05
M 7	125.89	4.81E+01 +/-	1.34E+00	4.10E+00 3.97E-04 +/- 2.36E-05
m 8	129.93	3.32E+02 +/-	5.40E+00	4.10E+00 4.09E-04 +/- 2.72E-05
9	148.57	4.22E+01 +/-	2.14E+00	3.07E+00 4.48E-04 +/- 4.84E-05
M 10	171.98	1.28E+01 +/-	1.30E+00	2.47E+00 4.67E-04 +/- 5.93E-05
m 11	175.60	2.00E+00 +/-	6.54E-01	2.41E+00 4.67E-04 +/- 5.95E-05
12	179.81	7.90E+00 +/-	1.67E+00	2.35E+00 4.67E-04 +/- 5.93E-05
13	189.83	1.09E+01 +/-	1.36E+00	2.22E+00 4.65E-04 +/- 5.77E-05

14	196.32	1.24E+01	+/-	1.35E+00	2.15E+00	4.63E-04	+/-	5.58E-05
15	208.64	2.01E+02	+/-	3.73E+00	2.03E+00	4.56E-04	+/-	5.12E-05
16	244.70	2.12E+00	+/-	1.56E+00	1.78E+00	4.25E-04	+/-	3.51E-05
17	255.98	1.29E+01	+/-	1.19E+00	1.72E+00	4.15E-04	+/-	3.05E-05
M 18	264.54	4.02E+00	+/-	5.44E-01	1.68E+00	4.06E-04	+/-	2.74E-05
m 19	268.25	1.01E+01	+/-	8.92E-01	1.67E+00	4.03E-04	+/-	2.61E-05
20	279.54	3.31E+00	+/-	1.22E+00	1.65E+00	3.92E-04	+/-	2.28E-05
21	298.00	6.75E+00	+/-	1.05E+00	1.60E+00	3.74E-04	+/-	1.90E-05
22	311.90	9.63E+00	+/-	9.59E-01	1.57E+00	3.62E-04	+/-	1.74E-05
M 23	321.61	9.56E+00	+/-	7.84E-01	1.54E+00	3.53E-04	+/-	1.68E-05
m 24	324.05	1.26E+01	+/-	8.65E-01	1.54E+00	3.51E-04	+/-	1.68E-05
M 25	333.31	8.51E+01	+/-	1.94E+00	1.52E+00	3.43E-04	+/-	1.67E-05
m 26	336.28	2.84E+01	+/-	9.03E-01	1.51E+00	3.41E-04	+/-	1.67E-05
M 27	342.11	9.01E+00	+/-	5.05E-01	1.50E+00	3.36E-04	+/-	1.68E-05
m 28	345.60	7.61E+01	+/-	1.83E+00	1.49E+00	3.34E-04	+/-	1.69E-05
29	368.84	2.89E+01	+/-	1.24E+00	1.45E+00	3.16E-04	+/-	1.77E-05
30	375.65	1.44E+02	+/-	2.93E+00	1.44E+00	3.11E-04	+/-	1.79E-05
M 31	380.81	3.33E+01	+/-	1.04E+00	1.43E+00	3.07E-04	+/-	1.81E-05
m 32	383.37	3.41E+01	+/-	1.03E+00	1.43E+00	3.06E-04	+/-	1.82E-05
33	393.50	7.24E+01	+/-	1.51E+00	1.41E+00	2.99E-04	+/-	1.85E-05
34	413.70	1.93E+02	+/-	2.99E+00	1.39E+00	2.86E-04	+/-	1.90E-05
35	423.16	9.54E+00	+/-	6.68E-01	1.39E+00	2.81E-04	+/-	1.91E-05
36	446.28	1.09E+00	+/-	4.08E-01	1.38E+00	2.68E-04	+/-	1.91E-05
37	452.08	2.06E+01	+/-	7.43E-01	1.38E+00	2.65E-04	+/-	1.91E-05
38	511.39	3.51E-01	+/-	2.51E-01	1.35E+00	2.38E-04	+/-	1.79E-05
39	619.57	2.00E+00	+/-	2.58E-01	1.32E+00	2.01E-04	+/-	1.37E-05
40	646.57	5.31E-01	+/-	1.95E-01	1.31E+00	1.94E-04	+/-	1.27E-05
M 41	659.52	9.32E-01	+/-	1.31E-01	1.31E+00	1.91E-04	+/-	1.22E-05
m 42	663.04	9.37E+00	+/-	5.34E-01	1.31E+00	1.90E-04	+/-	1.20E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)
43	689.43	9.58E-01 +/-	1.51E-01	1.30E+00 1.84E-04 +/- 1.11E-05
44	704.44	5.20E-01 +/-	1.63E-01	1.30E+00 1.80E-04 +/- 1.06E-05
M 45	718.10	1.83E-01 +/-	6.67E-02	1.29E+00 1.77E-04 +/- 1.02E-05
m 46	722.68	4.79E+00 +/-	3.71E-01	1.29E+00 1.76E-04 +/- 1.01E-05
47	756.75	6.75E-01 +/-	1.13E-01	1.28E+00 1.70E-04 +/- 9.13E-06
48	769.84	1.36E+00 +/-	1.61E-01	1.28E+00 1.67E-04 +/- 8.82E-06
49	1112.12	2.33E-02 +/-	1.65E-02	1.22E+00 1.23E-04 +/- 5.54E-06
50	2236.00	1.00E+02 +/-	1.70E+00	1.16E+00 5.76E-05 +/- 3.29E-05

Segment: 6

Detector: DET01 (# 1)

Position: 6

Elapsed Live Time: 84.02 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Minimum transmission used.

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.005 +/- 0.0025
SE-75	264.65	0.000 +/- 0.0000	0.204 +/- 0.0049
SE-75	279.53	0.000 +/- 0.0000	0.228 +/- 0.0065
SE-75	400.65	0.000 +/- 0.0000	0.342 +/- 0.0096

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.04	2.91E+01 +/-	1.27E+00	4.10E+00 4.69E-07 +/- 2.95E-06
2	50.10	9.37E+00 +/-	1.84E+00	4.10E+00 2.19E-05 +/- 5.63E-05
3	60.13	9.97E+02 +/-	1.36E+01	4.10E+00 6.06E-05 +/- 9.93E-05
4	99.31	3.58E+02 +/-	6.50E+00	4.10E+00 3.06E-04 +/- 7.51E-05
5	111.64	7.58E+01 +/-	3.24E+00	4.10E+00 3.68E-04 +/- 4.01E-05
6	116.22	6.00E+01 +/-	4.11E+00	4.10E+00 3.87E-04 +/- 3.04E-05
M 7	125.90	4.62E+01 +/-	1.31E+00	4.10E+00 4.21E-04 +/- 2.46E-05
m 8	129.93	3.28E+02 +/-	5.35E+00	4.10E+00 4.33E-04 +/- 2.80E-05
9	144.74	4.31E+00 +/-	1.80E+00	3.31E+00 4.64E-04 +/- 4.49E-05
10	148.57	3.45E+01 +/-	1.84E+00	3.13E+00 4.69E-04 +/- 4.84E-05
11	172.05	1.74E+01 +/-	1.64E+00	2.52E+00 4.85E-04 +/- 5.88E-05
12	179.87	6.16E+00 +/-	1.56E+00	2.40E+00 4.85E-04 +/- 5.88E-05
13	189.85	7.87E+00 +/-	1.77E+00	2.27E+00 4.82E-04 +/- 5.72E-05
14	196.24	1.26E+01 +/-	1.86E+00	2.20E+00 4.80E-04 +/- 5.54E-05

15	208.64	1.99E+02	+/-	3.72E+00	2.09E+00	4.72E-04	+/-	5.09E-05
16	256.05	1.15E+01	+/-	1.32E+00	1.77E+00	4.33E-04	+/-	3.09E-05
M 17	264.53	3.65E+00	+/-	4.96E-01	1.72E+00	4.25E-04	+/-	2.79E-05
m 18	268.15	1.14E+01	+/-	8.93E-01	1.71E+00	4.22E-04	+/-	2.67E-05
M 19	298.02	7.30E+00	+/-	7.70E-01	1.63E+00	3.94E-04	+/-	1.97E-05
m 20	300.78	1.58E+00	+/-	3.89E-01	1.62E+00	3.92E-04	+/-	1.93E-05
21	311.90	9.72E+00	+/-	9.55E-01	1.60E+00	3.82E-04	+/-	1.81E-05
M 22	321.64	7.21E+00	+/-	8.06E-01	1.58E+00	3.74E-04	+/-	1.75E-05
m 23	323.86	1.06E+01	+/-	9.38E-01	1.58E+00	3.72E-04	+/-	1.74E-05
M 24	333.35	9.10E+01	+/-	1.98E+00	1.56E+00	3.65E-04	+/-	1.73E-05
m 25	336.29	3.54E+01	+/-	9.76E-01	1.56E+00	3.63E-04	+/-	1.73E-05
26	345.64	6.95E+01	+/-	1.47E+00	1.54E+00	3.55E-04	+/-	1.74E-05
27	362.54	1.22E+00	+/-	5.53E-01	1.52E+00	3.43E-04	+/-	1.79E-05
28	368.84	3.03E+01	+/-	1.25E+00	1.51E+00	3.38E-04	+/-	1.82E-05
29	375.66	1.40E+02	+/-	2.92E+00	1.50E+00	3.34E-04	+/-	1.84E-05
M 30	380.81	3.50E+01	+/-	1.07E+00	1.49E+00	3.30E-04	+/-	1.86E-05
m 31	383.42	3.35E+01	+/-	1.00E+00	1.49E+00	3.28E-04	+/-	1.87E-05
32	393.51	7.48E+01	+/-	1.52E+00	1.47E+00	3.22E-04	+/-	1.90E-05
33	413.70	1.88E+02	+/-	2.93E+00	1.46E+00	3.09E-04	+/-	1.95E-05
34	423.18	9.96E+00	+/-	6.39E-01	1.45E+00	3.04E-04	+/-	1.96E-05
35	452.07	2.21E+01	+/-	7.17E-01	1.44E+00	2.88E-04	+/-	1.97E-05
36	482.42	4.36E-01	+/-	2.79E-01	1.42E+00	2.73E-04	+/-	1.93E-05
37	619.55	2.09E+00	+/-	2.24E-01	1.37E+00	2.22E-04	+/-	1.43E-05
38	633.69	2.56E-01	+/-	1.54E-01	1.36E+00	2.18E-04	+/-	1.37E-05
39	646.71	1.09E+00	+/-	2.01E-01	1.36E+00	2.15E-04	+/-	1.32E-05
M 40	659.45	7.02E-01	+/-	1.14E-01	1.35E+00	2.11E-04	+/-	1.27E-05
m 41	663.10	9.79E+00	+/-	5.37E-01	1.35E+00	2.10E-04	+/-	1.26E-05
42	689.47	6.98E-01	+/-	1.73E-01	1.34E+00	2.03E-04	+/-	1.16E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)		
43	704.16	1.97E-01 +/- 9.88E-02	1.34E+00	2.00E-04 +/- 1.11E-05		
44	709.29	2.20E-01 +/- 8.93E-02	1.34E+00	1.98E-04 +/- 1.09E-05		
45	722.01	5.20E+00 +/- 2.74E-01	1.33E+00	1.95E-04 +/- 1.05E-05		
46	738.57	2.12E-01 +/- 8.14E-02	1.33E+00	1.92E-04 +/- 1.00E-05		
47	756.91	5.33E-01 +/- 1.21E-01	1.33E+00	1.88E-04 +/- 9.53E-06		
48	769.78	1.19E+00 +/- 1.51E-01	1.32E+00	1.85E-04 +/- 9.20E-06		
49	2236.00	1.00E+02 +/- 1.70E+00	1.18E+00	4.34E-05 +/- 2.42E-05		

Segment: 7

Detector: DET01 (# 1)

Position: 7

Elapsed Live Time: 95.80 sec Elapsed Real Time: 115.00 sec

Analysis Warnings:

Some transmission peaks rejected.

TRANSMISSION RESULTS

Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.000 +/- 0.0000
SE-75	264.65	0.000 +/- 0.0000	0.289 +/- 0.0056
SE-75	279.53	0.000 +/- 0.0000	0.307 +/- 0.0071
SE-75	400.65	0.000 +/- 0.0000	0.404 +/- 0.0102

PEAK ANALYSIS RESULTS

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.96	8.08E+00 +/- 6.38E-01	2.49E+00	4.71E-09 +/- 2.71E-08
2	50.10	1.64E+01 +/- 1.94E+00	1.98E+00	2.91E-06 +/- 6.82E-06
3	60.15	6.64E+02 +/- 8.93E+00	1.88E+00	1.60E-05 +/- 2.38E-05
4	75.60	7.86E+00 +/- 1.91E+00	1.80E+00	7.53E-05 +/- 5.63E-05
5	99.36	2.16E+02 +/- 4.32E+00	1.73E+00	2.43E-04 +/- 5.52E-05
6	111.67	4.22E+01 +/- 2.34E+00	1.71E+00	3.35E-04 +/- 3.49E-05
7	116.17	3.08E+01 +/- 2.98E+00	1.70E+00	3.65E-04 +/- 2.84E-05
M 8	125.91	3.07E+01 +/- 9.67E-01	1.68E+00	4.24E-04 +/- 2.46E-05
m 9	129.96	1.94E+02 +/- 3.40E+00	1.68E+00	4.45E-04 +/- 2.77E-05
10	148.57	2.09E+01 +/- 1.56E+00	1.65E+00	5.16E-04 +/- 4.85E-05
M 11	170.25	3.90E+00 +/- 6.16E-01	1.63E+00	5.53E-04 +/- 6.06E-05
m 12	172.01	6.54E+00 +/- 8.00E-01	1.63E+00	5.55E-04 +/- 6.09E-05
13	179.87	3.78E+00 +/- 1.10E+00	1.62E+00	5.58E-04 +/- 6.12E-05
14	189.95	6.44E+00 +/- 1.03E+00	1.61E+00	5.58E-04 +/- 5.97E-05
15	196.34	7.61E+00 +/- 1.26E+00	1.60E+00	5.56E-04 +/- 5.79E-05

16	208.66	1.15E+02	+/-	2.43E+00	1.59E+00	5.47E-04	+/-	5.32E-05
17	238.51	1.24E+00	+/-	6.76E-01	1.57E+00	5.13E-04	+/-	3.93E-05
18	256.06	6.65E+00	+/-	9.80E-01	1.55E+00	4.90E-04	+/-	3.18E-05
M 19	264.63	1.72E+00	+/-	3.78E-01	1.55E+00	4.78E-04	+/-	2.86E-05
m 20	268.12	5.37E+00	+/-	6.55E-01	1.54E+00	4.74E-04	+/-	2.74E-05
21	298.12	3.89E+00	+/-	8.49E-01	1.49E+00	4.34E-04	+/-	2.02E-05
22	311.90	5.96E+00	+/-	7.28E-01	1.48E+00	4.17E-04	+/-	1.86E-05
M 23	321.58	5.15E+00	+/-	5.60E-01	1.46E+00	4.05E-04	+/-	1.79E-05
m 24	324.08	6.76E+00	+/-	6.21E-01	1.46E+00	4.02E-04	+/-	1.78E-05
M 25	333.33	4.76E+01	+/-	1.30E+00	1.45E+00	3.92E-04	+/-	1.76E-05
m 26	336.30	1.60E+01	+/-	6.26E-01	1.45E+00	3.88E-04	+/-	1.76E-05
M 27	342.12	5.14E+00	+/-	3.64E-01	1.44E+00	3.82E-04	+/-	1.76E-05
m 28	345.66	4.28E+01	+/-	1.24E+00	1.44E+00	3.78E-04	+/-	1.76E-05
29	368.83	1.65E+01	+/-	8.69E-01	1.41E+00	3.55E-04	+/-	1.81E-05
30	375.68	7.87E+01	+/-	1.90E+00	1.41E+00	3.49E-04	+/-	1.82E-05
M 31	380.81	1.95E+01	+/-	7.38E-01	1.40E+00	3.44E-04	+/-	1.83E-05
m 32	383.39	1.81E+01	+/-	6.72E-01	1.40E+00	3.42E-04	+/-	1.84E-05
33	393.53	4.14E+01	+/-	9.86E-01	1.39E+00	3.33E-04	+/-	1.86E-05
34	413.70	1.05E+02	+/-	1.74E+00	1.38E+00	3.17E-04	+/-	1.88E-05
35	423.22	7.03E+00	+/-	4.72E-01	1.37E+00	3.10E-04	+/-	1.88E-05
36	452.10	1.27E+01	+/-	4.85E-01	1.36E+00	2.90E-04	+/-	1.86E-05
37	482.38	6.43E-01	+/-	1.87E-01	1.35E+00	2.72E-04	+/-	1.80E-05
38	598.63	2.01E-01	+/-	1.03E-01	1.31E+00	2.22E-04	+/-	1.40E-05
39	619.58	7.68E-01	+/-	1.56E-01	1.31E+00	2.15E-04	+/-	1.32E-05
40	646.55	8.51E-01	+/-	1.35E-01	1.30E+00	2.07E-04	+/-	1.23E-05
M 41	659.62	5.29E-01	+/-	8.87E-02	1.29E+00	2.04E-04	+/-	1.18E-05
m 42	663.05	5.89E+00	+/-	3.95E-01	1.29E+00	2.03E-04	+/-	1.17E-05

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Corrected Peak Count Rate (CpS)		
43	689.39	5.35E-01 +/-	1.11E-01	1.29E+00	1.96E-04 +/-	1.09E-05
44	704.53	2.57E-01 +/-	8.70E-02	1.28E+00	1.93E-04 +/-	1.05E-05
45	722.01	2.86E+00 +/-	1.89E-01	1.28E+00	1.89E-04 +/-	9.99E-06
46	757.11	3.83E-01 +/-	9.43E-02	1.27E+00	1.81E-04 +/-	9.16E-06
47	770.15	6.77E-01 +/-	1.13E-01	1.27E+00	1.79E-04 +/-	8.90E-06
48	1085.91	7.55E-02 +/-	3.71E-02	1.22E+00	1.35E-04 +/-	5.76E-06
49	2236.00	1.00E+02 +/-	1.63E+00	1.15E+00	5.07E-05 +/-	2.69E-05

Segment: 8 Detector: DET01 (# 1) Position: 8

Elapsed Live Time: 108.00 sec Elapsed Real Time: 115.00 sec

T R A N S M I S S I O N R E S U L T S
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Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.341 +/- 0.0113
SE-75	264.65	0.000 +/- 0.0000	0.500 +/- 0.0087
SE-75	279.53	0.000 +/- 0.0000	0.506 +/- 0.0098
SE-75	400.65	0.000 +/- 0.0000	0.545 +/- 0.0119

P E A K A N A L Y S I S R E S U L T S

Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.98	6.31E+00 +/-	4.88E-01	2.01E+00 7.56E-06 +/- 7.37E-06
2	49.68	4.02E+00 +/-	1.14E+00	1.68E+00 5.79E-05 +/- 2.89E-05
3	60.16	2.02E+02 +/-	2.99E+00	1.61E+00 1.10E-04 +/- 3.84E-05
4	99.36	5.99E+01 +/-	1.97E+00	1.50E+00 3.24E-04 +/- 3.31E-05
5	111.69	1.30E+01 +/-	1.31E+00	1.49E+00 3.75E-04 +/- 2.72E-05
6	116.13	5.40E+00 +/-	1.62E+00	1.48E+00 3.90E-04 +/- 2.56E-05
M 7	125.96	8.81E+00 +/-	5.10E-01	1.47E+00 4.19E-04 +/- 2.31E-05
m 8	130.00	5.60E+01 +/-	1.43E+00	1.47E+00 4.29E-04 +/- 2.26E-05
9	148.57	5.87E+00 +/-	8.08E-01	1.44E+00 4.62E-04 +/- 2.28E-05
10	171.93	2.57E+00 +/-	9.39E-01	1.40E+00 4.80E-04 +/- 2.51E-05
11	180.10	1.51E+00 +/-	7.45E-01	1.39E+00 4.81E-04 +/- 2.57E-05
12	196.44	1.65E+00 +/-	6.61E-01	1.37E+00 4.79E-04 +/- 2.62E-05
13	208.67	2.94E+01 +/-	1.10E+00	1.35E+00 4.74E-04 +/- 2.60E-05
14	256.10	1.70E+00 +/-	5.26E-01	1.30E+00 4.39E-04 +/- 2.28E-05
15	268.13	2.47E+00 +/-	7.30E-01	1.29E+00 4.28E-04 +/- 2.17E-05
16	297.95	1.03E+00 +/-	5.34E-01	1.28E+00 4.01E-04 +/- 1.90E-05
17	311.90	1.50E+00 +/-	4.40E-01	1.27E+00 3.88E-04 +/- 1.78E-05
M 18	321.35	1.75E+00 +/-	3.57E-01	1.27E+00 3.80E-04 +/- 1.71E-05

m 19	324.17	2.14E+00	+/-	3.69E-01	1.27E+00	3.77E-04	+/-	1.69E-05
M 20	333.36	1.29E+01	+/-	6.16E-01	1.27E+00	3.69E-04	+/-	1.62E-05
m 21	336.33	4.17E+00	+/-	3.09E-01	1.26E+00	3.67E-04	+/-	1.60E-05
22	345.68	1.07E+01	+/-	4.61E-01	1.26E+00	3.59E-04	+/-	1.54E-05
23	368.92	7.88E-01	+/-	6.03E-01	1.26E+00	3.40E-04	+/-	1.42E-05
24	375.71	2.12E+01	+/-	8.40E-01	1.25E+00	3.34E-04	+/-	1.38E-05
M 25	380.83	5.35E+00	+/-	3.66E-01	1.25E+00	3.30E-04	+/-	1.36E-05
m 26	383.42	5.29E+00	+/-	3.49E-01	1.25E+00	3.28E-04	+/-	1.35E-05
27	393.56	1.10E+01	+/-	4.59E-01	1.25E+00	3.21E-04	+/-	1.31E-05
28	413.70	2.68E+01	+/-	6.28E-01	1.24E+00	3.06E-04	+/-	1.25E-05
29	423.22	1.43E+00	+/-	1.98E-01	1.24E+00	3.00E-04	+/-	1.22E-05
30	452.15	3.36E+00	+/-	2.43E-01	1.23E+00	2.82E-04	+/-	1.16E-05
31	619.48	3.06E-01	+/-	9.82E-02	1.20E+00	2.06E-04	+/-	9.86E-06
32	653.16	1.39E-01	+/-	6.78E-02	1.19E+00	1.96E-04	+/-	9.51E-06
33	662.42	1.46E+00	+/-	1.40E-01	1.19E+00	1.93E-04	+/-	9.41E-06
34	689.42	1.14E-01	+/-	6.93E-02	1.19E+00	1.86E-04	+/-	9.10E-06
35	722.01	7.26E-01	+/-	9.11E-02	1.18E+00	1.78E-04	+/-	8.71E-06
36	769.99	2.45E-01	+/-	7.20E-02	1.18E+00	1.68E-04	+/-	8.12E-06
37	1085.91	1.86E-02	+/-	1.31E-02	1.14E+00	1.28E-04	+/-	4.75E-06
38	1408.01	1.86E-02	+/-	1.31E-02	1.12E+00	1.13E-04	+/-	7.00E-06
39	2236.00	1.00E+02	+/-	1.54E+00	1.10E+00	1.19E-04	+/-	2.92E-05

Segment: 9

Detector: DET01 (# 1)

Position: 9

Elapsed Live Time: 112.67 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.331 +/- 0.0111
SE-75	264.65	0.000 +/- 0.0000	0.503 +/- 0.0086
SE-75	279.53	0.000 +/- 0.0000	0.518 +/- 0.0097
SE-75	400.65	0.000 +/- 0.0000	0.563 +/- 0.0119

PEAK ANALYSIS RESULTS				
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	32.01	1.11E+00	+/- 2.29E-01	2.04E+00 6.10E-09 +/- 3.67E-08
2	49.60	1.74E+00	+/- 5.22E-01	1.70E+00 2.81E-06 +/- 7.08E-06
3	60.11	2.88E+01	+/- 8.71E-01	1.63E+00 1.64E-05 +/- 2.57E-05
4	95.51	1.72E+00	+/- 1.07E+00	1.53E+00 2.07E-04 +/- 6.10E-05
5	111.41	1.50E+00	+/- 7.10E-01	1.50E+00 3.20E-04 +/- 3.51E-05
6	208.58	1.10E+00	+/- 2.99E-01	1.35E+00 5.11E-04 +/- 5.16E-05
7	375.75	3.77E-01	+/- 1.79E-01	1.24E+00 3.18E-04 +/- 1.78E-05
8	393.56	3.48E-01	+/- 1.27E-01	1.24E+00 3.03E-04 +/- 1.81E-05
9	413.70	4.55E-01	+/- 1.06E-01	1.23E+00 2.88E-04 +/- 1.83E-05

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Instrument ID: SGS Can ID: S100-2514 Count Sequence #: 2514

10	662.42	4.76E-02	+/-	3.37E-02	1.18E+00	1.84E-04	+/-	1.12E-05
11	722.01	5.81E-02	+/-	3.11E-02	1.17E+00	1.72E-04	+/-	9.44E-06
12	778.90	5.28E-02	+/-	2.15E-02	1.16E+00	1.62E-04	+/-	8.21E-06
13	1001.03	2.64E-02	+/-	1.52E-02	1.14E+00	1.35E-04	+/-	6.06E-06
14	2236.00	1.00E+02	+/-	1.51E+00	1.10E+00	6.12E-05	+/-	3.31E-05

Segment: 10 Detector: DET01 (# 1) Position: 10

Elapsed Live Time: 113.26 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION		RESULTS	
	Energy	Container Transmission	Sample Transmission	
SE-75	136.00	0.000 +/- 0.0000		0.291 +/- 0.0093
SE-75	264.65	0.000 +/- 0.0000		0.468 +/- 0.0080
SE-75	279.53	0.000 +/- 0.0000		0.470 +/- 0.0089
SE-75	400.65	0.000 +/- 0.0000		0.525 +/- 0.0111

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.91	6.53E-01 +/- 1.81E-01	2.19E+00	1.63E-05 +/- 1.63E-05
2	60.12	1.28E+01 +/- 6.13E-01	1.71E+00	1.37E-04 +/- 4.88E-05
3	99.51	1.45E+00 +/- 5.59E-01	1.59E+00	3.30E-04 +/- 3.39E-05
4	311.90	5.52E-01 +/- 2.94E-01	1.30E+00	3.87E-04 +/- 1.76E-05
5	413.70	1.14E-01 +/- 8.30E-02	1.26E+00	3.15E-04 +/- 1.29E-05
6	443.98	9.21E-02 +/- 6.08E-02	1.25E+00	2.97E-04 +/- 1.23E-05
7	1001.03	3.49E-02 +/- 1.74E-02	1.16E+00	1.41E-04 +/- 5.67E-06
8	1085.91	8.72E-03 +/- 8.72E-03	1.15E+00	1.31E-04 +/- 4.92E-06
9	2236.00	1.00E+02 +/- 1.50E+00	1.11E+00	9.04E-05 +/- 2.29E-05

Segment: 11 Detector: DET01 (# 1) Position: 11

Elapsed Live Time: 113.52 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.224 +/- 0.0077
SE-75	264.65	0.000 +/- 0.0000	0.316 +/- 0.0055
SE-75	279.53	0.000 +/- 0.0000	0.327 +/- 0.0064
SE-75	400.65	0.000 +/- 0.0000	0.374 +/- 0.0084

PEAK ANALYSIS RESULTS						
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency		
1	32.44	1.35E+00 +/- 2.16E-01	2.47E+00	1.29E-03	+/ -	8.15E-03
2	59.88	6.86E+00 +/- 5.07E-01	1.89E+00	5.05E-04	+/ -	8.61E-04
3	443.98	6.28E-02 +/- 2.88E-02	1.40E+00	2.95E-04	+/ -	2.00E-05
4	964.13	1.74E-02 +/- 1.23E-02	1.26E+00	1.45E-04	+/ -	6.48E-06
5	2236.00	1.00E+02 +/- 1.50E+00	1.17E+00	5.79E-05	+/ -	3.30E-05

Segment: 12 Detector: DET01 (# 1) Position: 12

Elapsed Live Time: 113.77 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.083 +/- 0.0052
SE-75	264.65	0.000 +/- 0.0000	0.136 +/- 0.0026
SE-75	279.53	0.000 +/- 0.0000	0.143 +/- 0.0034
SE-75	400.65	0.000 +/- 0.0000	0.171 +/- 0.0047

PEAK ANALYSIS RESULTS						
Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency		
1	32.29	9.53E-01 +/- 1.82E-01	3.76E+00	2.76E-09	+/ -	1.68E-08
2	49.77	1.75E+00 +/- 3.78E-01	2.84E+00	1.96E-06	+/ -	5.02E-06
3	60.14	3.48E+00 +/- 3.94E-01	2.64E+00	1.29E-05	+/ -	2.07E-05
4	67.71	4.76E-01 +/- 3.08E-01	2.55E+00	3.29E-05	+/ -	3.76E-05
5	185.71	4.27E-01 +/- 2.39E-01	2.10E+00	5.47E-04	+/ -	6.36E-05
6	609.84	5.83E-02 +/- 3.02E-02	1.65E+00	1.95E-04	+/ -	1.31E-05
7	662.42	7.02E-02 +/- 3.26E-02	1.61E+00	1.82E-04	+/ -	1.13E-05

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8	1085.91	6.07E-02	+/-	2.29E-02	1.45E+00	1.28E-04	+/-	5.60E-06
9	1112.12	8.67E-03	+/-	8.67E-03	1.44E+00	1.27E-04	+/-	5.46E-06
10	2236.00	1.00E+02	+/-	1.50E+00	1.31E+00	6.48E-05	+/-	3.54E-05

Segment: 13 Detector: DET01 (# 1) Position: 13

Elapsed Live Time: 113.99 sec Elapsed Real Time: 115.00 sec

TRANSMISSION		RESULTS	
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.317 +/- 0.0094
SE-75	264.65	0.000 +/- 0.0000	0.404 +/- 0.0069
SE-75	279.53	0.000 +/- 0.0000	0.413 +/- 0.0078
SE-75	400.65	0.000 +/- 0.0000	0.463 +/- 0.0100

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (Cps)	Correction Factor	Original Efficiency		
1	49.86	1.95E+00	+/- 3.20E-01	1.73E+00	4.83E-06	+/- 1.30E-05
2	60.05	1.49E+00	+/- 3.11E-01	1.66E+00	2.26E-05	+/- 3.84E-05
3	121.11	7.36E-01	+/- 3.85E-01	1.51E+00	3.80E-04	+/- 2.34E-05
4	264.66	3.67E-01	+/- 2.26E-01	1.38E+00	4.27E-04	+/- 2.80E-05
5	400.66	6.65E-02	+/- 4.62E-02	1.32E+00	2.98E-04	+/- 1.92E-05
6	413.70	8.06E-02	+/- 4.58E-02	1.32E+00	2.89E-04	+/- 1.94E-05
7	511.78	1.20E-01	+/- 4.93E-02	1.28E+00	2.39E-04	+/- 1.80E-05
8	662.42	8.66E-03	+/- 8.66E-03	1.25E+00	1.92E-04	+/- 1.21E-05
9	778.90	4.33E-02	+/- 1.94E-02	1.22E+00	1.70E-04	+/- 8.63E-06
10	867.39	5.84E-02	+/- 3.88E-02	1.21E+00	1.57E-04	+/- 7.21E-06
11	2236.00	1.00E+02	+/- 1.50E+00	1.13E+00	5.36E-05	+/- 3.03E-05

Segment: 14 Detector: DET01 (# 1) Position: 14

Elapsed Live Time: 114.12 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.753 +/- 0.0180
SE-75	264.65	0.000 +/- 0.0000	0.842 +/- 0.0143
SE-75	279.53	0.000 +/- 0.0000	0.851 +/- 0.0154
SE-75	400.65	0.000 +/- 0.0000	0.871 +/- 0.0175

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.94	1.44E-01 +/- 8.57E-02	1.23E+00	3.41E-06 +/- 2.06E-05
2	49.74	1.85E+00 +/- 2.94E-01	1.16E+00	4.51E-05 +/- 1.13E-04
3	722.01	1.40E-02 +/- 1.61E-02	1.04E+00	1.81E-04 +/- 9.66E-06
4	867.39	2.59E-02 +/- 2.01E-02	1.04E+00	1.55E-04 +/- 7.11E-06
5	2236.00	1.00E+02 +/- 1.50E+00	1.02E+00	7.64E-05 +/- 4.15E-05

Segment: 15 Detector: DET01 (# 1) Position: 15

Elapsed Live Time: 114.18 sec Elapsed Real Time: 115.00 sec

TRANSMISSION RESULTS			
Nuclide	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.789 +/- 0.0182
SE-75	264.65	0.000 +/- 0.0000	0.866 +/- 0.0146
SE-75	279.53	0.000 +/- 0.0000	0.872 +/- 0.0157
SE-75	400.65	0.000 +/- 0.0000	0.897 +/- 0.0179

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	31.79	1.92E-01 +/- 8.73E-02	1.19E+00	9.99E-10 +/- 6.41E-09
2	60.04	3.93E-01 +/- 1.93E-01	1.12E+00	1.21E-05 +/- 2.00E-05
3	244.70	2.66E-01 +/- 1.19E-01	1.06E+00	4.32E-04 +/- 3.49E-05
4	443.98	5.33E-02 +/- 3.35E-02	1.04E+00	2.45E-04 +/- 1.65E-05
5	1085.91	1.40E-02 +/- 1.61E-02	1.02E+00	1.21E-04 +/- 5.37E-06
6	2236.00	1.00E+02 +/- 1.49E+00	1.02E+00	3.18E-05 +/- 1.80E-05

Segment: 16

Detector: DET01 (# 1)

Position: 16

Elapsed Live Time: 114.16 sec Elapsed Real Time: 115.00 sec

Nuclide	TRANSMISSION RESULTS		
	Energy	Container Transmission	Sample Transmission
SE-75	136.00	0.000 +/- 0.0000	0.737 +/- 0.0175
SE-75	264.65	0.000 +/- 0.0000	0.818 +/- 0.0138
SE-75	279.53	0.000 +/- 0.0000	0.826 +/- 0.0149
SE-75	400.65	0.000 +/- 0.0000	0.842 +/- 0.0169

PEAK ANALYSIS RESULTS		
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Peak No.	Energy (keV)	Net Peak Count Rate (CpS)	Correction Factor	Original Efficiency
1	49.74	2.07E+00 +/- 2.45E-01	1.17E+00	2.98E-05 +/- 1.83E-05
2	148.57	3.48E-01 +/- 2.21E-01	1.12E+00	2.48E-04 +/- 1.51E-05
3	662.42	6.04E-02 +/- 2.28E-02	1.05E+00	1.15E-04 +/- 7.04E-06
4	722.01	4.81E-02 +/- 2.64E-02	1.05E+00	1.06E-04 +/- 6.56E-06
5	778.90	3.41E-02 +/- 2.17E-02	1.05E+00	9.86E-05 +/- 6.05E-06
6	867.39	3.38E-02 +/- 2.87E-02	1.04E+00	8.96E-05 +/- 5.22E-06
7	1001.03	1.94E-02 +/- 1.67E-02	1.04E+00	7.97E-05 +/- 4.05E-06
8	2236.00	1.00E+02 +/- 1.49E+00	1.03E+00	6.28E-05 +/- 1.87E-05

Summed Spectrum

Peak Locate Report

Sample ID: S100-2514
Peak Locate Performed on: 12-17-07 3:55:38 PM
Peak Locate From Channel: 40
Peak Locate To Channel: 8192
Peak Search Sensitivity: 5.00

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
1	64.71	0.1104	32.02	36.11
2	100.54	0.1567	49.93	14.83
3	120.95	0.0320	60.14	425.45
4	199.34	0.0420	99.34	231.37
5	224.00	0.0602	111.67	118.30
6	233.13	0.0688	116.23	47.31
7	260.55	0.0421	129.94	227.47
8	290.14	0.1382	144.74	27.00
9	299.14	0.0864	149.24	62.43
10	344.72	0.1571	172.02	18.60
11	360.47	0.1700	179.90	14.75
12	380.39	0.1469	189.86	18.94
13	393.25	0.1262	196.29	27.12
14	417.97	0.0434	208.65	221.73
15	477.56	0.2523	238.45	6.57
16	488.63	0.2053	243.98	9.20
17	512.74	0.1152	256.04	31.23
18	529.82	0.2038	264.60	10.97
19	537.03	0.1278	268.19	26.82
20	596.76	0.1386	298.05	21.81
21	625.66	0.1094	312.50	32.39
22	643.28	0.1911	321.59	12.94
23	649.05	0.1600	324.05	15.19
24	667.24	0.0600	333.34	111.41
25	673.78	0.0973	336.30	49.01
26	684.41	0.1413	342.07	24.04
27	691.97	0.0598	345.64	114.69
28	752.00	0.0454	375.67	195.45
29	761.99	0.0810	380.82	68.32
30	767.81	0.0888	383.41	57.88
31	787.71	0.0597	393.52	101.66
32	829.34	0.0445	414.34	181.67
33	847.05	0.0898	423.19	49.77
34	904.85	0.0776	452.09	62.75
35	965.20	0.2500	482.27	6.30
36	1239.83	0.1527	619.58	15.65

Peak No.	Centroid Channel	Centroid Uncertainty	Energy (keV)	Peak Significance
37	1268.39	0.2722	633.86	5.04
38	1293.85	0.1635	646.59	13.80
39	1319.06	0.2694	659.57	7.54
40	1326.76	0.0937	663.08	40.47
41	1379.57	0.1798	689.45	10.76
42	1409.43	0.2321	704.38	6.24
43	1445.99	0.1112	722.66	27.56
44	1514.37	0.2152	756.85	7.25
45	1540.48	0.1904	769.90	8.97
46	2667.68	0.2547	1333.50	5.18
47	4472.53	0.0272	2235.93	393.38

Errors quoted at 1.000 sigma

Summed Spectrum

Peak Analysis Report

Sample ID: S100-2514
 Peak Analysis Performed on: 12-17-07 3:55:38 PM
 Peak Analysis From Channel: 40
 Peak Analysis To Channel: 8192

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
1	60-	71	64.71	32.02	1.12E+04	216.63	1.31E+04	
2	94-	103	100.54	49.93	5.36E+03	339.38	4.70E+04	
3	114-	127	120.95	60.14	3.24E+05	715.82	6.87E+04	
4	194-	203	199.34	99.34	1.10E+05	777.34	2.20E+05	
5	217-	227	224.00	111.67	2.26E+04	547.43	1.13E+05	
6	227-	239	233.13	116.23	1.64E+04	694.95	1.65E+05	
7	256-	267	260.55	129.94	8.39E+04	504.59	6.64E+04	
8	283-	293	290.14	144.74	6.55E+02	338.27	4.71E+04	
9	293-	304	299.14	149.24	1.12E+04	378.79	5.24E+04	
10	338-	351	344.72	172.02	5.33E+03	375.36	4.91E+04	
11	356-	367	360.47	179.90	2.33E+03	319.36	3.97E+04	
12	376-	387	380.39	189.86	3.17E+03	313.87	3.80E+04	
13	390-	400	393.25	196.29	4.22E+03	286.90	3.26E+04	
14	413-	425	417.97	208.65	6.05E+04	452.72	5.28E+04	
15	474-	481	477.56	238.45	3.99E+02	167.78	1.38E+04	
16	481-	495	488.63	243.98	3.93E+02	273.16	2.58E+04	
17	507-	520	512.74	256.04	3.73E+03	245.84	2.05E+04	
M 18	526-	544	529.87	264.60	1.23E+03	97.43	1.07E+04	
m 19	526-	544	537.06	268.19	3.26E+03	160.45	1.15E+04	
20	592-	604	596.76	298.05	2.33E+03	198.79	1.41E+04	
21	622-	631	625.66	312.50	3.19E+03	164.87	1.05E+04	
M 22	639-	656	643.85	321.59	2.86E+03	141.70	1.06E+04	
m 23	639-	656	648.76	324.05	3.63E+03	152.06	1.32E+04	
M 24	659-	681	667.35	333.34	2.58E+04	266.04	9.38E+03	
m 25	659-	681	673.27	336.30	8.67E+03	137.99	1.09E+04	
M 26	681-	699	684.80	342.07	2.69E+03	83.51	6.31E+03	
m 27	681-	699	691.94	345.64	2.33E+04	256.83	6.46E+03	
28	746-	759	752.00	375.67	4.36E+04	363.52	2.90E+04	
M 29	759-	775	762.30	380.82	1.03E+04	156.81	5.38E+03	
m 30	759-	775	767.48	383.41	1.01E+04	148.66	4.51E+03	
31	780-	795	787.71	393.52	2.20E+04	191.97	4.95E+03	
32	821-	837	829.34	414.34	5.70E+04	263.62	4.00E+03	
33	843-	851	847.05	423.19	3.50E+03	93.52	2.42E+03	
34	898-	912	904.85	452.09	6.57E+03	107.76	1.76E+03	
35	961-	973	965.20	482.27	1.67E+02	49.25	8.56E+02	
36	1231-	1247	1239.83	619.58	5.90E+02	43.39	4.12E+02	
37	1260-	1273	1268.39	633.86	4.78E+01	29.84	3.04E+02	

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Area	Peak Uncert.	Net Area	Continuum Counts
38	1290-	1299	1293.85	646.59	3.32E+02	31.47	2.90E+02	
M 39	1315-	1335	1319.80	659.57	2.45E+02	20.61	2.60E+02	
m 40	1315-	1335	1326.82	663.08	2.97E+03	84.26	2.30E+02	
41	1371-	1387	1379.57	689.45	2.94E+02	32.04	2.34E+02	
42	1405-	1417	1409.43	704.38	5.59E+01	25.81	2.26E+02	
43	1440-	1454	1445.99	722.66	1.45E+03	45.73	2.25E+02	
44	1505-	1522	1514.37	756.85	1.79E+02	24.88	1.35E+02	
45	1532-	1548	1540.48	769.90	4.08E+02	28.35	1.27E+02	
46	2662-	2672	2667.68	1333.50	4.16E+01	11.14	3.34E+01	
47	4467-	4482	4472.53	2235.93	1.74E+05	418.17	3.21E+02	

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Summed Spectrum

Nuclide Identification Report

Sample ID: S100-2514
Nuclide Library Used: C:\WAS\NLIB\LLNL.NLB

..... IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (uCi/)	Activity Uncertainty
Pulser	1.000	2236.00*	100.00	7.330E+02	2.000E+02
Np-237	0.742	300.10	6.63		
		311.90*	38.60	7.462E+00	3.926E-01
Pu-239	0.971	413.70*	0.00	4.272E+06	8.489E+04
Pu-239A	0.971	129.29*	0.01	1.222E+06	3.440E+04
Am-241	0.970	662.42*	0.00	1.228E+06	3.739E+04
Am-241D	0.970	722.01*	0.00	1.318E+06	4.395E+04
Pu-241	0.969	148.57*	0.00	4.919E+06	2.025E+05

* = Energy line found in the spectrum.

Energy Tolerance : 1.500 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 1.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 12-17-07 3:55:38 PM

Peak Locate From Channel: 40

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
1	32.02	1.0358E+02	1.95
2	49.93	4.9517E+01	6.34
3	60.14	2.9964E+03	0.34
4	99.34	1.0165E+03	0.75
5	111.67	2.0876E+02	2.44
6	116.23	1.5124E+02	4.26
8	144.74	6.0537E+00	51.66
10	172.02	4.9272E+01	7.05
11	179.90	2.1523E+01	13.72
12	189.86	2.9268E+01	9.92
13	196.29	3.8979E+01	6.81
14	208.65	5.5883E+02	0.79
15	238.45	3.6891E+00	42.04
16	243.98	3.6367E+00	69.43
17	256.04	3.4523E+01	6.59
M 18	264.60	1.1351E+01	7.94
m 19	268.19	3.0166E+01	4.92
20	298.05	2.1527E+01	8.54
M 22	321.59	2.6468E+01	4.96
m 23	324.05	3.3549E+01	4.20
M 24	333.34	2.3884E+02	1.06
m 25	336.30	8.0181E+01	1.61
M 26	342.07	2.4887E+01	3.11
m 27	345.64	2.1553E+02	1.13
28	375.67	4.0324E+02	0.87
M 29	380.82	9.5645E+01	1.54
m 30	383.41	9.3491E+01	1.49
31	393.52	2.0332E+02	0.91
33	423.19	3.2386E+01	2.68
34	452.09	6.0726E+01	1.66
35	482.27	1.5395E+00	29.57
36	619.58	5.4582E+00	7.35
37	633.86	4.4221E-01	62.39
38	646.59	3.0716E+00	9.47
M 39	659.57	2.2606E+00	8.43
41	689.45	2.7176E+00	10.90
42	704.38	5.1673E-01	46.17
44	756.85	1.6534E+00	13.91
45	769.90	3.7760E+00	6.94
46	1333.50	3.8471E-01	26.77

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 1.000 sigma

Combined Segment NID

NID Results Combiner Mode: Sum Activities

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	8.15E+02 +/-	1.20E+02	3.67E-02 +/-	5.41E-03
SE-75	< 5.65E-01 +/-	3.81E-02	< 2.54E-05 +/-	1.71E-06
EU-152X	< 2.56E-01 +/-	1.15E-02	< 1.16E-05 +/-	5.17E-07
U-233	< 3.10E+04 +/-	2.50E+03	< 1.40E+00 +/-	1.13E-01
U-235	7.75E-02 +/-	4.43E-02	3.49E-06 +/-	2.00E-06
Np-237	9.15E+00 +/-	5.28E-01	4.12E-04 +/-	2.38E-05
Pu-238	< 5.24E+04 +/-	5.97E+03	< 2.36E+00 +/-	2.69E-01
U-238	3.40E+00 +/-	1.16E+00	1.53E-04 +/-	5.21E-05
Pu-239	5.23E+06 +/-	1.77E+05	2.36E+02 +/-	7.99E+00
Pu-239A	3.45E+06 +/-	1.38E+05	1.55E+02 +/-	6.23E+00
Am-241	1.44E+06 +/-	5.97E+04	6.46E+01 +/-	2.69E+00
Am-241D	1.58E+06 +/-	6.93E+04	7.12E+01 +/-	3.12E+00
Pu-241	9.76E+06 +/-	6.52E+05	4.40E+02 +/-	2.94E+01

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide Mass (g)

U-235	3.59E-02	+/-	2.05E-02
Np-237	1.30E-02	+/-	7.50E-04
U-238	1.01E+01	+/-	3.45E+00
Pu-239	8.42E+01	+/-	2.85E+00
Pu-239A	5.56E+01	+/-	2.23E+00
Am-241	4.19E-01	+/-	1.74E-02
Pu-241	9.44E-02	+/-	6.31E-03

Summed Spectrum

Nuclide	Total Activity (uCi)		Concentration (uCi/g)	
Pulser	7.33E+02 +/-	2.00E+02	3.30E-02 +/-	9.01E-03
SE-75	< 1.21E+00 +/-	1.35E-02	< 5.47E-05 +/-	6.09E-07
EU-152x	< 6.08E-01 +/-	1.27E-02	< 2.74E-05 +/-	5.73E-07
U-233	< 7.02E+04 +/-	1.77E+03	< 3.16E+00 +/-	7.99E-02
U-235	< 1.66E+00 +/-	4.31E-02	< 7.49E-05 +/-	1.94E-06
Np-237	7.46E+00 +/-	3.93E-01	3.36E-04 +/-	1.77E-05
Pu-238	< 1.22E+05 +/-	2.88E+03	< 5.52E+00 +/-	1.30E-01
U-238	< 1.56E+01 +/-	2.56E-01	< 7.01E-04 +/-	1.15E-05
Pu-239	4.27E+06 +/-	8.49E+04	1.92E+02 +/-	3.82E+00
Pu-239A	1.22E+06 +/-	3.44E+04	5.50E+01 +/-	1.55E+00
Am-241	1.23E+06 +/-	3.74E+04	5.53E+01 +/-	1.68E+00
Am-241D	1.32E+06 +/-	4.40E+04	5.94E+01 +/-	1.98E+00
Pu-241	4.92E+06 +/-	2.03E+05	2.22E+02 +/-	9.12E+00

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

< = MDA

Nuclide	Mass (g)
Np-237	1.06E-02 +/- 5.57E-04
Pu-239	6.88E+01 +/- 1.37E+00
Pu-239A	1.97E+01 +/- 5.54E-01
Am-241	3.59E-01 +/- 1.09E-02
Pu-241	4.76E-02 +/- 1.96E-03

Final Non-Uniformity Results

Source Longitudinal Ratio: 0.776 +/- 1.7153
Matrix Longitudinal Ratio: 0.737 +/- 0.0491

Source Vertical Ratio: 0.890 +/- 0.4599
Matrix Vertical Ratio: 0.858 +/- 0.0206

NUDS could not find the transmission peak in one radial segment.

□